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ABSTRACT

This report presents data on U.S. births using information from the birth certificates of the 3.96 million births in 1999. Data are presented for maternal demographics (age, live-birth order, race, Hispanic origin, marital status, and educational attainment); maternal characteristics (medical risk factors, weight gain, tobacco use, and alcohol use); pregnant women's medical care utilization (prenatal care, obstetric procedures, labor and delivery complications, birth attendant, and delivery method); and infant characteristics (gestation, birthweight, Apgar score, abnormal conditions, congenital anomalies, and multiple births). Birth and fertility rates are presented by age, live-birth order, race, Hispanic origin, and marital status. Data by mother's state of residence, month and day of birth, sex ratio, and father's age are included. Trends in fertility patterns and maternal and infant characteristics are described. Birth and fertility rates changed little in 1999. Teenage birth rates fell slightly. Rates for women age 20-24 years declined slightly. Rates for women in their late 20s and 30s rose slightly. Number of births to unmarried women, birth rate, and percentage of births to unmarried women rose about 1 percent each. Improvements in prenatal care utilization continued. Percentage of low birthweight was 7.6 percent. Preterm births were 11.8 percent. (SM)

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Births: Final Data for 1999

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Abstract

Objectives—This report presents 1999 data on U.S. births according to a wide variety of characteristics. Data are presented for maternal demographic characteristics including age, live-birth order, race, Hispanic origin, marital status, and educational attainment; maternal characteristics (medical risk factors, weight gain, tobacco and alcohol use); medical care utilization by pregnant women (prenatal care, obstetric procedures, complications of labor and/or delivery, attendant at birth, and method of delivery); and infant characteristics (period of gestation, birthweight, Apgar score, abnormal conditions, congenital anomalies, and multiple births). Also presented are birth and fertility rates by age, live-birth order, race, Hispanic origin, and marital status. Selected data by mother's State of residence are shown, as well as data on month and day of birth, sex ratio, and age of father. Trends in fertility patterns and maternal and infant characteristics are described and interpreted.

Methods—Descriptive tabulations of data reported on the birth certificates of the 3.96 million births that occurred in 1999 are presented.

Results—Overall birth and fertility rates changed less than 1 percent in 1999. Teenage birth rates fell 2 to 6 percent. The rate for women aged 20–24 years declined slightly, while rates for women in their late twenties and their thirties rose 2 to 3 percent each. The number of births to unmarried women, the birth rate, and the percent of births that were to unmarried women each rose 1 percent or less. Smoking by pregnant women overall dropped again, but rose among women aged 18–24 years. Improvements in prenatal care utilization continued. The cesarean delivery rate increased for the third year after declining for 7 consecutive years. The proportion of multiple births continued to rise; however, higher order multiple births (e.g., triplets, quadruplets) declined for the first time in over a decade, following increases of 13 percent per year during 1990–98. The percent low birthweight remained at 7.6 percent, while preterm births rose to 11.8 percent. These trends are in large part the result of increases in multiple births.

Keywords: births • birth certificate • maternal and infant health • birth rates • maternal characteristics

Highlights

Births in the United States increased less than 1 percent in 1999, to 3,959,417, the second consecutive increase following a 7-percent decline from 1990 to 1997. The **birth rate** declined slightly in 1999 to 14.5 births per 1,000 total population, matching the record low reached in 1997. The **fertility rate**, which relates births to the number of women of childbearing age, increased less than 1 percent to 65.9 births per 1,000 women aged 15–44 years.

Fertility rates for women in racial and Hispanic origin subgroups changed relatively little in 1999. Rates increased for non-Hispanic white, Asian or Pacific Islander (API), Puerto Rican, and Cuban women. Rates declined for non-Hispanic black, Mexican, and American Indian women. The variation in rates found for recent years continued in 1999. The fertility rate was highest for Mexican women (112 per 1,000) followed by rates for Puerto Rican, non-Hispanic black, American Indian and API women, which fell within a relatively narrow range (66 to 78 per 1,000). Rates were much lower for non-Hispanic white and Cuban women (58 and 51 per 1,000, respectively).

The birth rate for teenagers declined again in 1999, falling 3 percent to 49.6 births per 1,000 women aged 15–19 years. The rate

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has declined 20 percent since 1991 (62.1) and is now at a record low. The birth rate for young teenagers 15–17 years fell 6 percent during 1998–99 to 22.7 per 1,000, also a record low. The rate for older teenagers 18–19 years declined 2 percent to 80.3. From 1991 to 1999, the rate for young teenagers dropped 26 percent, while the rate for older teenagers declined 15 percent. Although all population groups have experienced declines, the reductions in birth rates have been steepest for non-Hispanic black teenagers; rates fell by 22 to 38 percent. The teenage *pregnancy* rate has declined 19 percent in the 1990's, to 94.3 in 1997, reflecting concurrent declines in birth and abortion rates.

The birth rate for women in their early twenties declined slightly in 1999, falling to 111.0 per 1,000 women aged 20–24 years. The **rate for women aged 25–29** years increased 2 percent to 117.8 per 1,000. Birth rates for women in their twenties have changed relatively little since the early to mid-1970's.

Birth rates for women in their thirties increased to 89.6 per 1,000 aged 30–34 years, and to 38.3 per 1,000 aged 35–39 years, up 2 to 3 percent each. The rates for these age groups are at their highest in more than three decades. **The birth rate** for women aged 40–44 years increased again in 1999 to 7.4 per 1,000.

The **first birth rate** increased in 1999, to 26.6 first births per 1,000 women aged 15–44 years, the first increase in this rate since 1990. The **median age at first birth** increased to 24.5 years; the median has risen slowly but steadily since 1972 (22.0).

The **birth rate for unmarried women** increased slightly in 1999 to 44.4 births per 1,000 unmarried women aged 15–44 years. The number of births to unmarried women rose 1 percent to 1,308,560, the highest number ever reported. Most of this increase was linked to the rise in the number of unmarried women in the childbearing ages. The percent of all births that were to unmarried women increased to 33.0 percent in 1999, compared with 32.8 percent in 1998.

Cigarette smoking during pregnancy declined again in 1999, to 12.6 percent. The overall rate has fallen steadily since 1989. However, tobacco use by pregnant teenagers continued to increase in 1999, and the rates for women aged 20–24 years rose for the first time in a decade. Overall smoking rates remain lowest for non-Hispanic black, Hispanic, and Asian or Pacific Islander women. Infant birthweight is seriously compromised by maternal smoking: In 1999, 12.1 percent of births to smokers compared with 7.2 percent of births to nonsmokers weighed less than 2,500 grams (5 pounds, 8 ounces).

Women were slightly more likely to receive **timely prenatal care** in 1999, 83.2 percent began care in the first trimester of pregnancy, compared with 82.8 percent in 1998. The proportion of women with first trimester care has risen each year of the 1990's, for a total increase of 10 percent. Concurrently, the percent of women with late or no care has also improved for the decade, falling from 6.1 to 3.8 percent. Timely care has increased for all racial/ethnic groups between 1990 and 1999 with the largest gains (20 percent or more) reported for non-Hispanic black, American Indian, Hawaiian, Mexican, Puerto Rican, and Central and South American women.

The **rate of cesarean delivery** increased 4 percent between 1998 and 1999 to 22.0 percent; the 1999 rate is 6 percent higher than the recent low point in 1996 (20.7). This was the third consecutive year that the rate increased after falling each year during 1989–96. The **primary cesarean rate** in 1999 (15.5 per 100 live births to women who had no previous cesarean) was 4 percent higher than in 1998 and 6 percent higher than in 1997 (14.6). The rate had declined each year between 1989 and 1996 and remained steady between 1996 and 1997. The rate of **vaginal birth after previous cesarean delivery (VBAC)** declined 11 percent between 1998 and 1999—from 26.3 per 100 women with a previous cesarean to 23.4. The VBAC rate dropped 17 percent between 1996 and 1999 after rising 50 percent between 1989 and 1996 (from 18.9 to 28.3). Births delivered by **forceps** continued to decline, to 2.3 percent of all births in 1999. After increasing steadily between 1989 and 1997, the percent of births delivered by **vacuum extraction** fell 18 percent between 1997 and 1999, to 5.1 percent.

Almost 20 percent of women who delivered in 1999 had **induced labor**, twice the 1990 level. The rate of induction has increased every year since 1989.

Twin births continued to rise in 1999, but for the first year in over a decade, **triplet and other higher order multiple births** (triplet/+) births declined. The number and rate of twin births was up 3 percent to 114,307 or 28.9 per 1,000 live births between 1998 and 1999. The twinning rate has risen by more than 50 percent since 1980. The number of triplet/+ births however, was down to 7,321 for 1999, from 7,625 in 1998; the triplet/+ birth rate declined 4 percent, from 193.5 to 184.9 per 100,000 live births. For 1998–99 the non-Hispanic white triplet/+ birth rate declined, but the rate increased among non-Hispanic black and Hispanic women. Since 1980, the number and rate of triplet/+ births has climbed from 1,337 and 37.0 per 100,000.

The rate of **preterm birth** (less than 37 completed weeks of gestation) increased again for 1999 to 11.8 percent from 11.6 percent in 1998. The percent of births born preterm has risen 11 percent since 1990 (10.6 percent). All of the current year rise, and most of that for the decade, has been among moderately preterm births (between 32 and 36 weeks of gestation). The proportion of births born very preterm was 1.96 percent; this level has fluctuated little since 1990. The preterm rate increased for non-Hispanic white births (10.2 to 10.5 percent for 1998–99), but was unchanged among non-Hispanic black (17.6 percent) and Hispanic births (11.4 percent).

The **low birthweight** (LBW) (less than 2,500 grams) rate was unchanged for 1999 at 7.6 percent. Low birthweight has been rising fairly steadily since the mid-1980's (6.8 percent), and has risen 9 percent since 1990 (7.0 percent). The percent **very low birthweight** (VLBW) (less than 1,500 grams) was unchanged from the previous year (1.45 percent), but has increased from 1.27 percent in 1990. LBW has risen substantially (18 percent) among non-Hispanic white births in the 1990's, but has declined slightly among births to non-Hispanic black mothers. The rise in LBW, especially among non-Hispanic white births, is influenced by the increased multiple birth rate; multiple births are much more likely than singletons to be low birthweight.

Introduction

This report presents detailed data on numbers and characteristics of births in 1999, birth and fertility rates, maternal lifestyle and health characteristics, medical services utilization by pregnant women, and infant health characteristics. These data provide important information on fertility patterns among American women by such characteristics as age, live-birth order, race, Hispanic origin, marital status, and educational attainment. Up-to-date information on these fertility patterns is critical to understanding population growth and

change in this country and in individual States. Data on maternal characteristics such as weight gain, tobacco and alcohol use, and medical risk factors are useful in accounting for differences in birth outcomes. Information on use of prenatal care, obstetric procedures, complications of labor and/or delivery, attendant at birth and place of delivery, and method of delivery by maternal demographic characteristics can also help to explain differences in birth outcomes. It is very important that data on birth outcomes, especially levels of low birthweight and preterm birth, be continuously monitored, because these variables are important predictors of infant mortality and morbidity.

A report of preliminary birth statistics for 1999 presented data on selected topics based on a substantial sample (more than 99 percent) of the 1999 birth file (1). Findings for the selected measures (age, race, Hispanic origin, and marital status of mother, live-birth order, prenatal care, cesarean delivery, and low birthweight) based on the preliminary data are very similar to those presented here based on final data.

In addition to the tabulations included in this report, more detailed analysis is possible by using the natality public-use data tape, which is issued for each year. Birth data are also available in CD-ROM format since 1990, and a selection of tables of detailed data are available on the NCHS home page at http://www.cdc.gov/nchs/datawh/statab/unpubd/natality/natab97.htm (2, 3).

Methods

Data shown in this report are based on 100 percent of the birth certificates registered in all States and the District of Columbia. More than 99 percent of births occurring in this country are registered (4). Tables that show data by State also provide separate information for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas. However, these areas are not included in totals for the United States.

In this report, tabulations of births beginning with 1980 data are by race of mother; for years prior to 1980, tabulations are by race of child. Details of the differences in tabulation procedure are described in the Technical notes. Text references to black births and black mothers or white births and white mothers are used interchangeably for ease in writing.

Race and Hispanic origin are reported independently on the birth certificate. In tabulations of birth data by race and Hispanic origin, data for Hispanic persons are not further classified by race because the vast majority of women of Hispanic origin are reported as white. Most tables in this report show data for these categories: white, total; white, non-Hispanic; black, total; black, non-Hispanic; and Hispanic. When data other than birth rates for Hispanic subgroups are shown, they are presented for the following five groups: Mexican, Puerto Rican, Cuban, Central and South American, and other (and unknown) Hispanic. When reporting birth rates for Hispanic subgroups, births to Central and South American women are added to births to other (and unknown) Hispanic women because more detailed population data for Central and South American women are not separately available. Data are shown for five Asian or Pacific Islander (API) subgroups: Chinese, Japanese, Hawaiian, Filipino, and "other" API. In addition, 11 States report data on API subgroups included in the "other API" category (Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and remaining API); see Technical notes.

U.S. and State-level birth and fertility rates in this report were computed on the basis of population denominators provided by the U.S. Bureau of the Census. Rates by State shown in this report may differ from rates computed on the basis of other population estimates. Additional information on the measurement of marital status, gestational age, and birthweight; the computation of derived statistics and rates; population denominators; random variation and relative standard error; and the definitions of terms are presented in the Technical notes.

Information on births by age, race, or marital status of mother is imputed if it is not reported on the birth certificate. These items were not reported for less than 1 percent of U.S. births in 1999. (See Technical notes for additional information.) All other maternal and infant characteristics (except items on which length of gestation is calculated) are not imputed; see Technical notes. Births for which a particular characteristic is unknown are subtracted from the figures for total births that are used as denominators before percents, percent distributions, and medians are computed. Thus, for example, the proportion of women receiving care in the first trimester of pregnancy is computed on the basis of births for which month prenatal care began was reported. Levels of nonreporting vary substantially by specific item and by State. Table I in the Technical notes provides information on the percent of records with missing information for each item by State for 1999. Readers should note that the levels of incomplete reporting for some of the medical items are quite high in some States. Data for Connecticut, Hawaii, and Oklahoma, as well as the Northern Marianas are of particular concern.

Demographic characteristics

Births and birth rates

Number of births

The number of births in the United States increased less than 1 percent in 1999, to 3,959,417, compared with 3,941,553 in 1998. This is the second year of increase, albeit very modest, in the number of births since 1990. Between 1990, the most recent high point in U.S. births, and 1997, the number of births fell 7 percent; the number rose 2 percent between 1997 and 1999 **(see tables 1–14 for national and State birth data by age, live-birth order, race, and Hispanic origin)**.

Increases and declines in the **number of births for race and Hispanic origin groups** were about evenly split in 1999 **(tables 1 and 6)**. The number of non-Hispanic white and non-Hispanic black births each fell about 1 percent. Births to American Indian, Puerto Rican, Cuban, and Hawaiian women were essentially unchanged. While births to Hispanic and Asian or Pacific Islander (API) women increased overall about 4 to 5 percent, these increases were concentrated among a few subgroups: Mexican and Central and South American births rose 5 percent each, Chinese births increased 3 percent, and "other" API births jumped 8 percent. In contrast Japanese and Filipino births declined 2 percent each.

Crude birth rate

The crude birth rate declined very slightly from 14.6 live births per 1,000 total population in 1998 to 14.5 in 1999, matching a record

low for the Nation (1997). During the 1990's the rate declined in all but one year (1998). Between 1990 and 1997, the rate fell 13 percent.

Fertility rate

The fertility rate, which relates births to the number of women in the childbearing ages, was 65.9 live births per 1,000 women aged 15–44 years in 1999, less than 1 percent higher compared with 1998 (65.6). While the steady 7-year downward trend in U.S. fertility from 1990 to 1997 may have ended, at least temporarily, there is no evidence for any real upturn. Like the number of births and the birth rate, the recent high point for the fertility rate was 1990 (70.9); between 1990 and 1997, the fertility rate dropped 8 percent **(table 1 and figure 1)**.

Fertility rates by race and Hispanic origin increased very slightly for non-Hispanic white (57.8 per 1,000 aged 15–44 years) women and declined 1 percent for non-Hispanic black women (72.2). Rates for American Indian (69.7) and Mexican women (111.6) each declined by 1 percent or less. Rates for API (65.6), Puerto Rican (77.7), Cuban (51.2), and other Hispanic women (92.6) each rose 2 to 3 percent (tables 1 and 6). Birth and fertility rates for specific API groups cannot be computed because the necessary populations are not available.

The fertility rate for Hispanic women in 1999 was among the lowest reported since 1989 when data accounting for virtually all Hispanic births in the United States first became available. The fertility rate for Mexican women in 1999 is also at its lowest, 8 percent lower than the peak recorded in 1991 (121.6). Trends in fertility for Hispanic women by subgroup for 1989–95 are presented in more detail in a recent report (5).

Age of mother

Teenagers—Birth rates for teenagers fell to all-time lows in 1999. The **birth rate for the youngest teenagers** was 0.9 births per 1,000 females 10–14 years in 1999, a record low for this age group **(table 4)**. This rate has declined steadily since 1994 (the rate was 1.4 in each year 1989 through 1994). The number of births to 10–14-year-olds fell 4 percent from 1998 to 1999, to 9,054, the lowest total reported in more than three decades (8,593 in 1967). The number of births to very young teenagers declined solely because the birth rate fell; the number of female teenagers has increased steadily in the 1990's and rose 2 percent from 1998 to 1999 (6).

The **birth rate for teenagers 15–19 years** fell 3 percent to 49.6 per 1,000, an all-time low for the Nation. This rate was 20 percent lower than the recent peak reported in 1991 (62.1) **(table A)**. The declines in the 1990's in the teenage birth rate essentially reverse the 24-percent increase that occurred from 1986 (50.2 per 1,000) to 1991. State-specific birth rates for teenagers are discussed in the section "Births and birth rates by State."

Birth rates for teenage subgroups 15–17 and 18–19 years also fell between 1998 and 1999. The rate for teenagers 15–17 years declined 6 percent to 28.7 per 1,000, another record low (1,7). This rate fell by 26 percent from 1991 (38.7) to 1999 **(table 4 and figure 2)**. The number of births to teenagers 15–17 years fell 3 percent from 1998 to 1999 to 163,588, the fewest in more than four decades.

The birth rate for older teenagers 18–19 years declined 2 percent, to 80.3 per 1,000. This rate fell 15 percent from 94.5 in 1992 (its recent high) to 1999 and is at its lowest point in more than a decade (79.9 in 1988). However, the number of births to older teens increased slightly between 1998 and 1999 to 312,482, only the second increase since 1990. This small increase is entirely due to the 2-percent rise in the number of female teenagers 18–19 years (6).

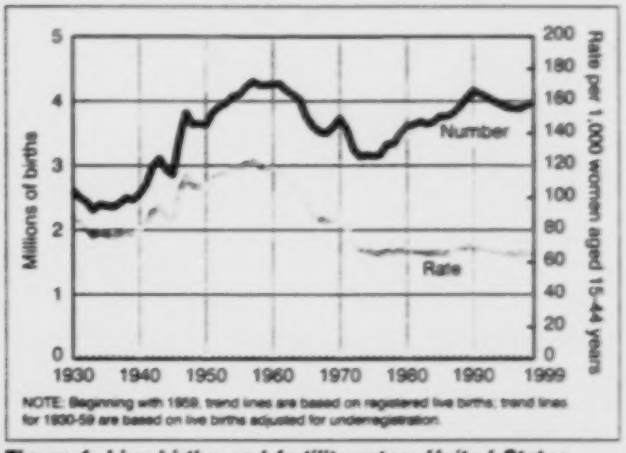


Figure 1. Live births and fertility rates: United States, 1930–99

Table A. Birth rates for teenagers 15–19 years by age, race, and Hispanic origin of mother: United States, 1991, 1998, and 1999, and percent change, 1991–99

[Rates are live births per 1,000 women in specified group]

Year and age	Total[1]	Non-Hispanic		Hispanic
		White	Black	
15–19 years				
1999	49.6	34.0	83.7	93.4
1998	51.1	35.2	88.2	93.6
1991[2]	62.1	43.4	118.9	106.7
Percent change, 1991–99	–20	–22	–30	–12
Percent change, 1998–99	–3	–3	–5	–0
15–17 years				
1999	28.7	17.1	53.7	61.3
1998	30.4	18.4	58.8	62.3
1991[2]	38.7	23.6	86.7	70.6
Percent change, 1991–99	–26	–28	–38	–13
Percent change, 1998–99	–6	–7	–9	–2
18–19 years				
1999	80.3	58.9	126.8	139.4
1998	82.0	60.6	130.9	140.1
1991[2]	94.4	70.5	163.1	158.5
Percent change, 1991–99	–15	–16	–22	–12
Percent change, 1998–99	–2	–3	–3	–0

[1] Includes races other than white and black and origin not stated.
[2] See reference 5 for information on reporting areas in 1991.

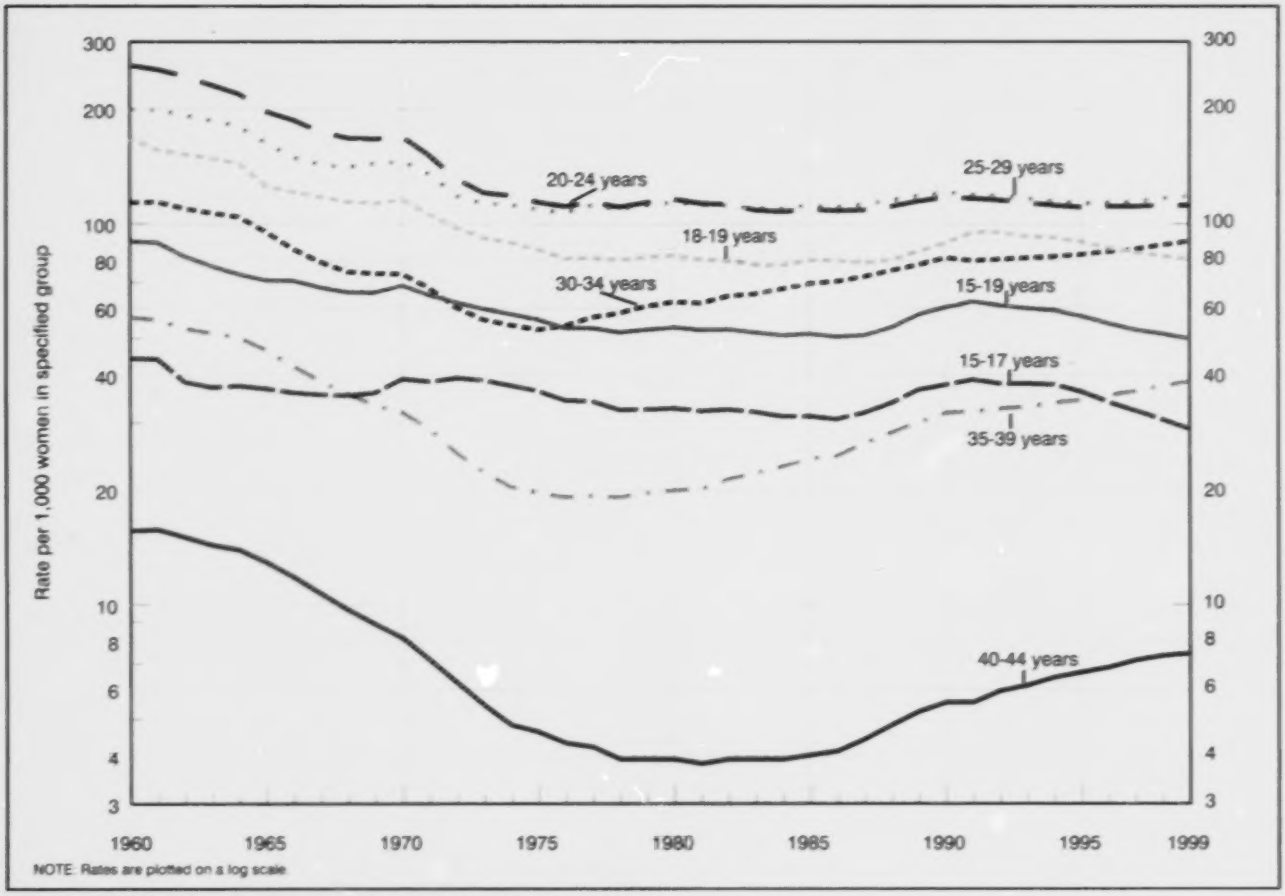


Figure 2. Birth rates by age of mother: United States, 1960–99

Teenage birth rates by race and Hispanic origin vary substantially **(tables 3, 4, 8, and 9)**. Rates in 1999 were highest for Mexican, non-Hispanic black, Puerto Rican, and American Indian teenagers and lowest for non-Hispanic white, Cuban, and API teenagers, a pattern that has been observed since 1994. Despite the marked variation in rates (ranging from 22.3 to 101.5 per 1,000 aged 15–19 years), all population groups experienced notable declines in the 1990's. Between 1998 and 1999, teenage birth rates declined for all race and Hispanic origin groups except Cuban and "other" Hispanic teenagers. The rates for non-Hispanic white and API teenagers fell 3 percent each, while rates for non-Hispanic black and American Indian teenagers declined 5 to 6 percent each. The rates for Hispanic teenagers as a group and Mexican teenagers declined 1 percent or less.

From 1991, when rates for teenagers generally were at a peak, to 1999, birth rates fell 22 to 30 percent for non-Hispanic white and black teenagers, respectively. Despite the increase in the rate for Cuban teenagers, their rate remains one of the lowest among population subgroups. The 1999 rates for API and American Indian teenagers were 19 to 20 percent lower, respectively, than in 1991. The rate for Mexican teenagers, currently the highest of all groups, has declined by 19 percent just since 1995.

Teenage pregnancy rates (based on the sum of live births, induced abortions, and fetal losses) have also declined in recent years (8–10). The pregnancy rate for teenagers 15–19 years fell 19 percent from 116.5 per 1,000 in 1991 to 94.3 in 1997, reversing an 11-percent rise from 1986 to 1991 (8, 9). (The most recent year for which pregnancy rates are available is 1997.) Further declines in the teenage pregnancy rate since 1997 are likely based on the sustained decline in the teenage birth rate.

The factors accounting for the current downturn in teenage pregnancy and birth rates are discussed in recent reports (7, 8). Briefly, the proportion of teenagers who are sexually experienced has stabilized in the mid 1990's, reversing the steady increases over the past two decades (11). Many public and private initiatives have focused teenagers' attention on the importance of pregnancy prevention through abstinence (12). Moreover, teenagers are more likely to use contraceptives at first intercourse, especially condoms (11, 13, and 14). Some sexually active teenagers have switched to implant and injectable contraceptives, which are effective new birth control methods (11).

Women aged 20 years and over: Women in their twenties—The birth rate for women aged 20–24 years declined very slightly in 1999 to 111.0 per 1,000. Since 1996, this rate has varied little, from 110 to 111 per 1,000. Earlier in the decade, the rate fell 5 percent from 116.5 in 1990 to 1996 **(tables 4 and 9)**. The birth rate for women aged 25–29 years rose 2 percent in 1999 to 117.8, its highest level since 1992; this rate increased by 5 percent since 1995, following steady declines during 1990–95. Birth rates for women in their twenties, the principal childbearing ages, have been relatively stable over the

past two decades. In 1999 as in previous years, birth rates for women in age groups 20–24 and 25–29 years were consistently highest for Mexican women.

Women in their thirties—Birth rates for women in their thirties rose again in 1999. Rates for women in these age groups have generally increased steadily since the mid- to late 1970's, a pattern unlike any other age group **(tables 4 and 9)** (3, 15). The **rate for women aged 30–34 years** increased 3 percent in 1999 to 89.6 per 1,000. The 1999 rate was higher than in any year since 1965 (94.4), and 71 percent higher than the rate at its low point in 1975 (52.3) (3, 15). The pace of increase in the rate slowed in the 1990's to about 1 percent per year, compared with 3 percent annually during 1975–90. The number of births to women aged 30–34 years increased only slightly in 1999, because the number of women in that age group declined 2 percent (6).

The **birth rate for women in their late thirties** increased 2 percent to 38.3 per 1,000 women aged 35–39 years. This rate has more than doubled since 1978 (19.0); the 1999 rate matches the previous high point reached in 1967 (3). The pace of increase in the rate for women aged 35–39 years also slowed in the 1990's to about 2 percent annually compared with 4 percent per year from 1978 to 1990. Nevertheless, the 1999 rate was still 21 percent higher than the rate in 1990 (31.7). The number of births to women aged 35–39 years reached another record high in 1999 (434,294). During the 1990's, the number rose by more than one-third (317,583 in 1990). Among women in their thirties, birth rates were highest for API, Mexican, and "other" Hispanic women **(tables 3 and 8)**.

Women in their forties—The **birth rate for women aged 40–44 years** increased from 7.3 per 1,000 in 1998 to 7.4 in 1999. This rate increased a third from 1990 (5.5) to 1999. From 1981 when the rate was at its lowest to 1999, the rate increased by 95 percent; the 1999 rate is higher than in any year since 1970 (8.1). From 1990 to 1999, the number of births in this age group rose 71 percent, from 48,607 to 83,090.

The **birth rate for women aged 45–49 years** remained unchanged at 0.4 births per 1,000 in 1998. Reflecting the continued increase in the number of women in this age group (who were born during 1950–54), the number of births to women aged 45–49 years rose 15 percent to 4,174, the highest number recorded in more than three decades (4,436 in 1966).

Births to women aged 50 years and over—Birth data for women aged 50–54 years are reported for the third consecutive year in 1999. These data were not available during 1964–96; for that period, mother's age was edited for ages 10–49 years (4). Additional information on the editing procedures is presented in the Technical notes. Because of the recent advances in fertility-enhancing therapies, an increasing number of women are giving birth at age 50 and older. In 1999, 174 births were reported to women aged 50–54 years **(tables 2 and 7)**; 68 of these births were part of a multiple delivery (see section below on "Multiple births"). This number is too small for computing an age-specific birth rate. Therefore, in computing birth rates by age of mother, births to women aged 50–54 years have been included with births to women aged 45–49 years; the denominator for the rate is women aged 45–49 years.

Birth rates for women in their late thirties and early forties increased in 1999 but at a more moderate pace, similar to that experienced earlier in the 1990's. Still the rates for these age groups are dramatically higher than a quarter century ago (table 4). The sustained rise is linked to several factors, including the availability and use of fertility-enhancing therapies by childless couples. Among currently childless women aged 35–44 years reporting impaired fecundity according to the National Survey of Family Growth, the proportion seeking fertility drug treatment rose considerably from 1982 to 1995 (13, 16).

Live-birth order

The first birth rate in 1999 was 26.6 first births per 1,000 women aged 15–44 years **(table 5)**, up slightly compared with 1998. The 1999 increase was the first since 1990. The 1999 rate was 8 percent lower than in 1990 (29.0), its recent high point. The rates for second and third order births also increased slightly. Birth rates for other birth orders were unchanged.

While the first birth rate increased about 1 percent overall, there were substantial differences in the trends by age of mother (**table 3**; tabular data not shown for 1998 and earlier years). Rates declined for teenage subgroups 15–17 and 18–19 years by 6 and 1 percent, respectively. Rates for women in their twenties increased up to 1 percent. In contrast, first birth rates rose 4 and 2 percent, respectively, for women aged 30–34 and 35–39 years. The rate for women aged 40–44 years rose as well. Women aged 30 years and over accounted for 23 percent of all first births in 1999, the same proportion as in 1997 and in 1998, but dramatically higher than the 5 percent level reported in 1975 (15).

Another measure that can be useful in interpreting age trends in childbearing is the **median age at first birth**. The median age is the value that divides the birth rate distributions into two equal parts, one-half of the values being less and one-half being greater. This measure has gradually increased since the early 1970's as the tendency for women to postpone childbearing was underway. The median age at first birth inched up again in 1999 to 24.5 years, compared with 24.3 years in 1998, 23.8 in 1990, and 22.0 in 1972 (3). The **mean age at first birth** is also useful in reviewing age patterns in fertility; the mean age was 24.8 years in 1999, compared with 24.7 in 1997 and 1998.

The **birth rate for second births to teenagers** who have had a first birth changed very little in 1999, compared with 1997 and 1998, after falling 21 percent from 1991 to 1996 (6). All of the decline in teenage birth rates in 1999 was thus due to declines in first birth rates.

Total fertility rate

The total fertility rate (TFR) shows the potential impact of current fertility patterns on completed family size. The TFR indicates the number of births that a hypothetical group of 1,000 women would have if they experienced throughout their childbearing years the age-specific birth rates observed in a given year. Because it is computed from age-specific birth rates, the TFR is age-adjusted; it is not affected by changes over time in age composition.

The TFR in 1999 was 2,075.0, a scant 1 percent higher than in 1998 **(tables 4 and 9)**. The TFR has increased by 3 percent overall since 1995, reversing a 3-percent decline from 1990 to 1995. The increase in the TFR in 1999 resulted from the 1- to 3- percent increases in age-specific birth rates for women in age groups 25–44 years, which more than compensated for the declines in birth rates for teenagers and women in their early twenties.

The U.S. TFR for 1999 was about 1 percent below "replacement" level (2,100), the rate at which a given generation can exactly replace itself. The TFR has been below "replacement" since 1971 (2,266.5). TFR's vary substantially among racial and Hispanic origin groups. In 1999, as in recent years, the TFR was above "replacement" for Mexican, non-Hispanic black, Puerto Rican, and "other" Hispanic women. Rates were below "replacement" for American Indian, API, Cuban, and non-Hispanic white women **(tables 4, 9, 13, and 14)**. Increases and decreases between 1998 and 1999 in most TFR's were 1 percent or less; the rate declined 2 percent for American Indian women and rose 3 percent for API women. State-specific total fertility rates for 1999 are discussed in the next section.

Births and birth rates by State

Birth data by race and by Hispanic origin for 1999 are shown in **tables 10–12** for the 50 States and the District of Columbia, and Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas. The American Indian, Asian or Pacific Islander (API), and Hispanic populations (and Hispanic subgroups) are highly concentrated geographically.

Increases and declines in the **number of births** were fairly evenly divided among the 50 States and the District of Columbia, and were generally 2 percent or less. The number of births rose 4 percent in Arizona, Colorado, and Georgia and fell 3 to 4 percent in Hawaii, New Hampshire, and North Dakota. Births fell 6 to 7 percent in the Virgin Islands, Guam, and the Northern Marianas and rose 3 percent in American Samoa.

Crude birth rates by State ranged from 11 births per 1,000 total population (Maine and Vermont) to 22 per 1,000 (Utah) **(table 10)**. Birth rates increased in 14 States, declined in 29 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and the Northern Marianas, and were unchanged in 7 States and American Samoa. Changes were no greater than 2 percent in most States, and were not significant in 35 of the States and the District of Columbia. A statistically significant increase of 4 percent was recorded for South Dakota, while a significant decrease of 4 percent was found for New Hampshire.

Fertility rates per 1,000 women aged 15–44 years ranged from a low of 49 (Maine and Vermont) to a high of 93 (Utah) **(table 10)**. Rates increased in 34 States, the Virgin Islands, and American Samoa, declined in 13 States, the District of Columbia, Puerto Rico, Guam, and the Northern Marianas; the rate was unchanged in three States. Changes in most States were no more than 2 percent and were not statistically significant in 31 States, the District of Columbia, the Virgin Islands, and American Samoa. Significant increases of 4 percent each were reported for Colorado and South Dakota.

State-specific **total fertility rates** (TFR's) for 1999 are shown in **table 10**. These rates provide a summary measure of lifetime fertility at the State level; rates for 1980, 1990, and 1996–98 have been published (17–21). Rates by State for 1999 vary substantially, from a low of 1,570.0 (or 1.57 births per woman) for Vermont to a high of 2,745.5 (2.75 births per woman) for Utah. Differences in the TFR and changes between 1998 and 1999 by State are quite similar to those in the general fertility rate.

Birth rates for teenagers

Birth rates for teenagers by age group and State are shown for 1999 in **table 10** and **table B**. Rates per 1,000 women aged 15–19 years ranged by State from 24.0 (New Hampshire) to 72.5 (Mississippi). The highest rate was reported for Guam, 96.6. Birth rates for teenagers have been declining in the United States since 1991. Teenage birth rates were lower in 1999 than in 1998 in all but seven States and American Samoa. However, the overall trend for the 1990's was downward: Rates for 1999 were lower than for 1991 in all States, the District of Columbia, Puerto Rico, and the Virgin Islands; declines were statistically significant in all States, the District of Columbia, and the Virgin Islands. There was a nonsignificant increase in Guam **(table B)**. Declines exceeded 30.0 percent in 5 States, and exceeded 25.0 percent in 9 States, the District of Columbia, and the Virgin Islands. More detailed information on current trends and variations in State-specific teenage birth rates by age, race, and Hispanic origin is presented in a recent report (7).

Sex ratio

The relative number of births by sex is important because it affects population change. There were 2,026,854 male live births in 1999 compared with 1,932,563 female live births yielding a sex ratio at birth of 1,049 males per 1,000 females, compared with 1,047 in 1998 **(tables 13 and 14)**. The annual sex ratio has changed very little over the last 50 years. Nevertheless, substantial differences exist in the sex ratios by race and ethnic group (22). Similar to previous years, Asian or Pacific Islander mothers, as a group, had the highest sex ratio (1,064). The sex ratios for the Asian or Pacific Islander subgroups, excluding Hawaiian, exceeded 1,060. The sex ratio for Hispanic mothers (1,041), as a group, was intermediate between non-Hispanic white mothers (1,055) and non-Hispanic black mothers (1,032). Finally, American Indian mothers had the lowest sex ratio (1,029).

Month of birth

In 1999 August was the month with the most frequent occurrence of births while February was the month with the least frequent occurrence of births **(table 15)**. The average number of births per month was 329,951. Standardizing the number of births for the number of days of the month, September had the highest average number of births per month. January had the lowest average number of births per month.

The observed monthly birth rates for 7 months of 1999 were below the rates for the same months in 1998. For 3 months, the birth rates were above those of the previous year. When seasonal variation is filtered from the monthly birth and fertility rates, an estimate of the underlying trends in these rates is obtained. The seasonally adjusted birth rates for 6 months were lower in 1999 than for the same months in 1998. Of these, December had the lowest seasonally adjusted birth rate in at least 4 years. As in 1998, the seasonally adjusted birth rates for January, May, and July were the lowest since 1976.

Table B. Birth rates for teenagers 15–19 years by State, 1991 and 1999, and percent change, 1991–99: United States and each State and territory

[Birth rates per 1,000 estimated female population aged 15–19 years in each area]

State	1991	1999	Percent change, 1991–99	State	1991	1999	Percent change, 1991–99
United States*	62.1	49.6	–20.1	Nebraska	42.4	37.0	–12.7
				Nevada	75.3	64.1	–14.9
Alabama	73.9	62.8	–15.0	New Hampshire	33.3	24.0	–27.9
Alaska	65.4	41.8	–36.1	New Jersey	41.6	32.8	–21.2
Arizona	80.7	69.6	–13.8	New Mexico	79.8	67.4	–15.5
Arkansas	79.8	68.1	–14.7	New York	46.0	37.0	–19.6
California	74.7	50.7	–32.1	North Carolina	70.5	59.5	–15.6
Colorado	58.2	48.4	–16.8	North Dakota	35.6	27.7	–22.2
Connecticut	40.4	33.3	–17.6	Ohio	60.5	46.0	–24.0
Delaware	61.1	54.3	–11.1	Oklahoma	72.1	60.5	–16.1
District of Columbia	114.4	83.5	–27.0	Oregon	54.9	46.5	–15.3
Florida	68.8	53.5	–22.2	Pennsylvania	46.9	36.2	–22.8
Georgia	76.3	65.1	–14.7	Rhode Island	45.4	38.2	–15.9
Hawaii	58.7	43.8	–25.4	South Carolina	72.9	60.8	–16.6
Idaho	53.9	43.7	–18.9	South Dakota	47.5	37.6	–20.8
Illinois	64.8	51.1	–21.1	Tennessee	75.2	62.7	–16.6
Indiana	60.5	51.6	–14.7	Texas	78.9	70.1	–11.2
Iowa	42.6	35.8	–16.0	Utah	48.2	40.2	–16.6
Kansas	55.4	47.4	–14.4	Vermont	39.2	25.7	–34.4
Kentucky	68.9	56.4	–18.1	Virginia	53.5	42.7	–20.2
Louisiana	76.1	62.8	–17.5	Washington	53.7	40.1	–25.3
Maine	43.5	29.8	–31.5	West Virginia	57.8	47.9	–17.1
Maryland	54.3	42.6	–21.5	Wisconsin	43.7	35.7	–18.3
Massachusetts	37.8	28.7	–24.1	Wyoming	54.2	40.4	–25.5
Michigan	59.0	40.5	–31.4				
Minnesota	37.3	30.0	–19.6	Puerto Rico	72.4	72.0	–0.6**
Mississippi	85.6	72.5	–15.3	Virgin Islands	77.9	55.2	–29.1
Missouri	64.5	49.6	–23.1	Guam	95.7	96.6	0.9**
Montana	46.7	35.1	–24.8	American Samoa	---	46.4	---
				Northern Marianas	---	62.0	---

** Not significant at $p < .05$.
--- Data not available.
*Excludes data for the territories.

Day of the week of birth

The average number of births on any given day in 1999 was 10,848 **(table 16)**. However, there was considerable variation in the number of births by day of the week. For the most frequent day of birth, Tuesday, the average was 12,424 while for the least frequent day, Sunday, the average was 7,731.

Variation in the daily pattern of births can also be measured by an index of occurrence. The index is defined as the ratio of the average number of births for a particular day of the week to the average daily number of births for the year with the base set at 100. In 1999 the index for Sunday was 71.3, an indication that there were 28.7 percent fewer births on Sundays than the daily average. The index for Saturday was 79.8. As in past years, Tuesdays had the highest index in 1999, 114.5.

A weekend deficit is apparent for vaginal and cesarean deliveries, but is far greater for cesarean deliveries, particularly repeat cesareans. In 1999 the Sunday index for vaginal births was 76.6, compared with 62.3 for primary cesareans, and 36.4 for repeat cesareans.

Births to unmarried women

The **birth rate for unmarried women** rose very slightly in 1999 to 44.4 births per 1,000 unmarried women aged 15–44 years, compared with 44.3 in 1998; the 1999 rate was still 5 percent lower than its highest level, 46.9 in 1994. The **number of births to unmarried women** increased 1 percent to 1,308,560 in 1999. Most of the 4-percent increase in the number since 1997 is due to the concurrent 3-percent growth in the population of unmarried women (23). The **percent of all births occurring to unmarried** women rose to 33.0 in 1999 from 32.8 percent in 1998. (See **tables C, 17, and 19**.)

There were no changes in 1999 in the procedures for reporting the mother's marital status, a factor that affected trends earlier in the decade. Details of earlier changes in reporting practices are described in the Technical notes and elsewhere (24). In 1999 all States except for Michigan and New York reported the mother's marital status through a direct question on the birth certificate or in the electronic birth registration process. Michigan and New York inferred the mother's marital status on the basis of other information on the birth certificate; see Technical notes.

Birth rates for unmarried women vary considerably by race and Hispanic origin. In 1999 the rates per 1,000 unmarried women were 27.9 per 1,000 for non-Hispanic white women, 71.5 for black women, and 93.4 for Hispanic women. The birth rate for unmarried black women has declined steadily since 1989 (90.7), by 21 percent overall; the 1999 rate is at its lowest point since 1969 when data for black women became available (24). The birth rate for unmarried non-Hispanic white women was essentially stable in 1999, while the rate for Hispanic women rose 4 percent.

Table C. Number, rate, and percent of births to unmarried women, and birth rate for married women: United States, 1980 and 1985–99

Year	Births to unmarried women			Birth rate for married women[3]
	Number	Rate[1]	Percent[2]	
1999	1,308,560	44.4	33.0	86.5
1998	1,293,567	44.3	32.8	85.7
1997	1,257,444	44.0	32.4	84.3
1996	1,260,306	44.8	32.4	83.7
1995	1,253,976	45.1	32.2	83.7
1994	1,289,592	46.9	32.6	83.8
1993	1,240,172	45.3	31.0	86.8
1992	1,224,876	45.2	30.1	89.0
1991	1,213,769	45.2	29.5	89.9
1990	1,165,384	43.8	28.0	93.2
1989	1,094,169	41.6	27.1	91.9
1988	1,005,299	38.5	25.7	90.8
1987	933,013	36.0	24.5	90.0
1986	878,477	34.2	23.4	90.7
1985	828,174	32.8	22.0	93.3
1980	665,747	29.4	18.4	97.0

[1]Births to unmarried women per 1,000 unmarried women aged 15–44 years.
[2]Percent of all births to unmarried women.
[3]Births to married women per 1,000 married women aged 15–44 years.

Birth rates for unmarried women by age continue to be highest for women aged 18–19 and 20–24 years, followed closely by women aged 25–29 years (**figure 3**). Rates for younger teenagers and women in age groups 30 years and over are considerably lower (**tables 17 and 18**). Among teenagers and women aged 20–24 years, rates for unmarried black and Hispanic women on average were 2 to 3 times the rates for non-Hispanic white women in the same age groups. Among age groups 25–29 years and over, rates were considerably higher for Hispanic women than for black or non-Hispanic white women.

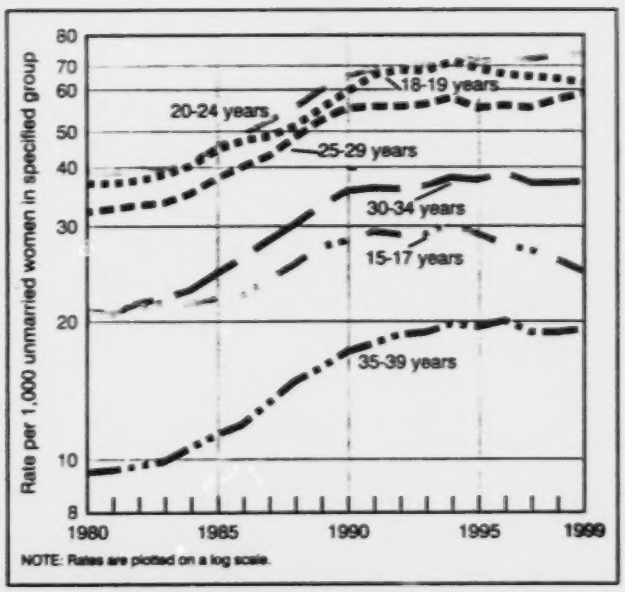


Figure 3. Birth rates for unmarried women, by age of mother: United States, 1980–99

Age-specific birth rates for unmarried women declined only for teenagers in 1999, a pattern that has generally been observed since 1994. During the 1994–99 period, the rates for unmarried teenagers 15–17 and 18–19 years declined 20 and 10 percent, respectively. Since 1994, rates have fallen considerably for young black, non-Hispanic white, and Hispanic teenagers aged 15–17 years, by 31, 19, and 11 percent, respectively.

The birth rate for unmarried women aged 20–24 years rose about 1 percent, whereas the rate for women aged 25–29 years increased 3 percent. These increases brought the rates for women in their twenties to record highs in 1999. The birth rate for unmarried women aged 30–34 years rose less than 1 percent in 1999, while the rate for women in their late thirties increased 2 percent. The rate for women aged 40–44 years was unchanged in 1999. Increases for women in age groups 20–24 through 35–39 years were substantial for Hispanic women.

The **proportion of all births occurring to unmarried women** increased to 33.0 percent in 1999, compared with 32.8 percent in 1998. The proportions for subgroups in 1998 were 22.1 percent, non-Hispanic white; 69.1 percent, non-Hispanic black; and 42.2 percent, Hispanic; these proportions have risen since the mid 1990's for non-Hispanic white and Hispanic births, but have declined slightly for non-Hispanic black births (see **tables 13, 14, 17, and 19** for 1999 data) (24).

Changes in the proportion of births to unmarried women are affected by trends in births and birth rates for married as well as unmarried women (**table C**). The proportion of births to unmarried women has changed relatively little since 1994 because of compensating changes in these measures as well as in the population of unmarried women (23). However, the increases in the number of unmarried women and their birth rate were larger than the increases in marital fertility. Thus, the proportion of births to unmarried women inched up again in 1999 (24).

The **numbers and proportions of births to unmarried women by State** and by race and Hispanic origin for 1999 are shown in **table 19** for the 50 States and the District of Columbia, and each territory. Increases in the numbers and proportions far outpaced declines overall. The numbers increased in 36 States, and declined in 14 States and the District of Columbia. The numbers in the territories declined except for increases in Puerto Rico and American Samoa. The proportion increased in 33 States, Puerto Rico, Guam, American Samoa, and the Northern Marianas, declined in 14 States, the District of Columbia, and the Virgin Islands, and was unchanged in three States.

Age of father

The **birth rate per 1,000 men aged 15–54 years** was 50.8 in 1999 (**table 20**). This was slightly lower than the rate in the past year but higher than in 1997. Birth rates increased for men in age groups 25–44 years, remained stable for men in age groups 45 years and over, and decreased for men in the age groups under 25 years.

The mean age of fathers in 1999 was 29.7 years, essentially unchanged from 1997 and 1998 (tabular data not shown). In general, Asian or Pacific Islander fathers as a group were the oldest (32.6 years) with only 2 percent less than 20 years of age. The mean ages of non-Hispanic white fathers and black fathers were 30.9 and 29.0 years, respectively; 3 percent of white fathers and 7 percent of black fathers were teenagers. American Indian fathers were the youngest (28.3

years) with 8 percent less than 20 years of age. Finally, the median age of Hispanic fathers was 28.4 years with 7 percent less than 20 years of age.

Information on age of father is often missing on birth certificates of children born to unmarried women and women less than 30 years of age (24). In 1999 age of father was not reported for 14 percent of all births but for 40 percent of all nonmarital births. In computing birth rates by age of father, births where age of father is not stated were distributed in the same proportion as births where age of father is stated within each 5-year age interval of mother. This procedure avoids the distortion in rates that would result if the relationship between age of mother and age of father were disregarded. The procedures for computing birth rates by age of father are described in more detail in the Technical notes.

Educational attainment

The educational attainment of women who give birth is important because higher educational attainment is associated with more timely receipt of prenatal care and fewer lifestyle and health behaviors during pregnancy that are detrimental to birth outcome (discussed in later sections).

Data from the birth certificate show that the educational attainment of women who gave birth increased substantially over the last few decades, partly reflecting the increases in educational attainment of all women during the time period (25). More than three-fourths of women who gave birth in 1999 had 12 or more years of schooling (78 percent), and 24 percent had 16 or more years of formal schooling **(table 21)**. The percent of mothers with at least 12 years of schooling generally increased over the range of age, to about 90 percent for women who gave birth in their thirties and then slightly decreased for mothers 40 years of age and over (89 percent). The percent of mothers with at least 16 years of formal schooling was highest for women 35 years of age and over (44 percent). The median educational attainment for all mothers in 1999 was 12.9 years.

In general, Japanese and Filipino mothers were the most likely to have completed 12 years of school—98 percent and 94 percent, respectively **(table 13)**. Eighty-seven percent of non-Hispanic white mothers compared with 74 percent of non-Hispanic black mothers and 51 percent of Hispanic mothers had completed high school **(table 14)**. Although the overall proportion of Hispanic mothers with at least 12 years of schooling was low, there was considerable variation among Hispanic subgroups, ranging from 45 percent of Mexican mothers to 88 percent of Cuban mothers. More than two-thirds of American Indian mothers had 12 or more years of schooling (68 percent). Finally, 31 percent of non-Hispanic white mothers had at least 16 years of school compared with 11 percent of non-Hispanic black mothers and 7 percent of Hispanic mothers.

Maternal lifestyle and health characteristics

Weight gain

Maternal weight gain is one of the components in the complex relationship between lifestyle characteristics of the mother and the development of the fetus (26). In 1990 the National Academy of Sciences published weight-gain guidelines that varied according to mother's body mass index (BMI), which is calculated from her prepregnancy weight and height. The guidelines recommend that women who are underweight (low BMI) gain 28 to 40 pounds, those who are of normal weight (average BMI) gain 25 to 35 pounds, those who are overweight (high BMI), gain 15 to 25 pounds, and obese women, gain not more than 15 pounds (27).

Information on maternal weight gain is collected on the birth certificate, but information on the mother's prepregnancy weight and height is not. Therefore, it is not possible to determine whether the weight gain was within the recommendations for the mother's BMI. Differences between subgroups in maternal weight gain may reflect differences in the proportion of mothers who gained outside the recommended range but could also be the result of group differences in maternal height and prepregnancy weight.

In 1999 all States except California reported information on weight gain. Births to mothers residing in these States accounted for 87 percent of all births in the United States. In 1999, the majority of women (64 percent) gained 26 pounds or more during pregnancy **(table 22)**. The **median weight gain** in 1999 was 30.5 pounds and it has changed very little in the last 10 years. Despite the consistency of the median weight gain, the percent of mothers who gained at either end of the weight gain spectrum was higher in 1999 than in 1989—weight gains of less than 16 pounds increased from 9.4 percent in 1989 to 11.8 percent in 1999 while weight gains of 46 pounds or more increased from 9.1 percent in 1989 to 12.0 percent in 1999.

The **weight gain of the mother during pregnancy varied considerably by period of gestation**. Mothers who had preterm infants (gestations of under 37 completed weeks) gained 3 pounds less during pregnancy (27.9 pounds) than mothers who had babies with gestations of 40 weeks and over (30.9 pounds). The median weight gain for non-Hispanic white women (30.8 pounds) was about a pound higher than for either non-Hispanic black women (30.0 pounds) or Hispanic women (29.8 pounds).

The percent of non-Hispanic black mothers who had weight gains of less than 16 pounds (17.1 percent) was much higher than for Asian or Pacific Islander (API) (9.7 percent) and non-Hispanic white mothers (10.2 percent) while American Indian mothers were intermediate (15.9 percent) **(tables 24 and 25)**.

Within Hispanic subgroups, the percent of Mexican mothers who gained less than 16 pounds (15.0 percent) was more than twice that of Cuban mothers (7.1 percent) while the remaining groups were intermediate **(table 25)**.

Maternal weight gain has been shown to have a positive correlation with the birthweight of the infant (28). This relationship is substantiated by the data in **table 23**. The percent of infants with low birthweight dropped steadily with increasing weight gain through 36 to 40 pounds, from 13.9 to 5.2 percent, remained steady at 5.2 percent for women who gained 41 to 45 pounds, and then increased slightly for mothers who gained 46 pounds or more (5.5 percent). The general decline in the percent low birthweight with greater maternal weight gain is present for non-Hispanic white, non-Hispanic black, and Hispanic women regardless of the period of gestation.

Medical risk factors

Maternal medical risk factors have a major influence on pregnancy complications and infant survival (29–31). Some of these conditions require close medical supervision to prevent severe complications. Sixteen medical risk factors that can affect pregnancy outcome are separately identified on the birth certificate **(table 26)**.

In 1999 the most frequently reported medical risk factors were **pregnancy-associated hypertension** (38.2 per 1,000 live births), **diabetes** (27.3) and **anemia** (23.2) **(table 26)**. These have been the most frequently reported risk factors since 1990, and their rates have risen steadily. Pregnancy-associated hypertension increased by 40 percent; the rates for diabetes and anemia increased by 28 and 27 percent, respectively. The pregnancy-associated hypertension rate rose among the majority of racial and ethnic groups during the 1990's. Rates for the related hypertensive disorders, **chronic hypertension** and **eclampsia**, have been relatively stable during this decade.

Overall, and for the majority of racial and ethnic groups, the reported rate of **hydramnios/oligohydramnios** (the excess or shortage of amniotic fluid) has consistently increased each year since 1990, and has more than doubled between 1990 and 1999 (from 5.9 to 13.5 per 1,000). These conditions have been associated with diabetes (32, 33). Acute or chronic **lung disease** (e.g., asthma, tuberculosis) has exhibited an even more dramatic upward trend. Although lung disease is reported in only 1 percent of all pregnant women, the level of lung disease has more than tripled overall between 1990 and 1999 (from 3 to 11 per 1,000).

Medical risk factors during pregnancy vary greatly by **race and ethnicity (tables 27 and 28)**. Since 1992, American Indian women have consistently had the highest rates of pregnancy-associated hypertension, diabetes, and anemia, comprising about 5 percent of all American Indian pregnancies for each condition. In comparison, during the same time period, only about 1 percent of Chinese mothers had pregnancy-associated hypertension or anemia. Among the Hispanic subgroups, in 1999 Cuban mothers had the lowest rates of anemia and diabetes (1 and 2 percent each, respectively).

Medical risk factor rates also often differ widely by maternal age **(table 26)**. Anemia, for example, is more common among younger mothers (33 per 1,000 for mothers under 20 years of age compared with 18 for mothers 40 years of age and over). Older mothers, conversely, are more prone to chronic conditions such as diabetes (65 per 1,000 for mothers 40 years and over compared with 8 per 1,000 for mothers under 20 years of age). Some risk factors, however, such as pregnancy-associated hypertension, follow a U-shaped pattern, with the highest levels at the extremes of the maternal age distribution.

Rates for rarely occurring medical risk factors and for smaller population groups can vary widely from year-to-year and should be used with caution. Some of the apparent increases since 1990 may be an artifact of improved reporting. Other issues to be considered in evaluating the completeness of reporting include the diversity of the risk factors, their temporal and causal sequence in the pregnancy, and factor specific underreporting (34, 35). Medical risk factors may be incorrectly reported due to lack of uniform definitions and difficulty in interpreting data from medical records (36).

Tobacco use during pregnancy

Smoking during pregnancy declined again to 12.6 percent of women giving birth in 1999, according to birth certificate data. This was a 2-percent drop compared with 1998 (12.9 percent), and a 35-percent reduction since 1989 (19.5 percent), when this information first became available on the birth certificate (21, 37). Beginning in 1999, data on whether or not the mother smoked during pregnancy is available for all States and the District of Columbia, except for California and South Dakota. This reporting area comprised 87 percent of U.S. births in 1999. (See **tables 24, 25, and 29–32**.) Additional information on the reporting areas is included in the Technical notes.

Some studies have suggested that smoking may be underreported on birth certificates due to a variety of factors, including the lack of a specific time reference for smoking status, variations in the source of this information for each birth, and the growing stigma associated with smoking (37–40). Nevertheless, trends in maternal smoking based on the birth certificate are generally consistent with those reported for recent years from the National Survey of Family Growth and more recently from CDC's Behavioral Risk Factor Surveillance Summary, and variations in smoking among population subgroups found in birth certificate data have been corroborated in other studies (13, 41–43).

Tobacco use during pregnancy is associated with a variety of adverse outcomes, including increased risk of miscarriage, intrauterine growth retardation, low birthweight, and infant mortality, as well as negative consequences for child health and development (44–47).

Maternal smoking declined or was unchanged in all racial and Hispanic origin groups. As in previous years, rates were highest for non-Hispanic white, American Indian, and Hawaiian women, and lowest for Mexican, Cuban, Central and South American, and Asian or Pacific Islander women (API) (except Hawaiian) **(tables 24 and 25)**. The generally very low smoking rates found for Mexican, Central and South American, Chinese, and Filipino women from birth certificate data have been confirmed elsewhere (42). Smoking rates tend to be dramatically higher for women born in the 50 States and the District of Columbia than for women born outside these areas, a pattern that has been described in other studies **(tables 24 and 25)** (48, 49).

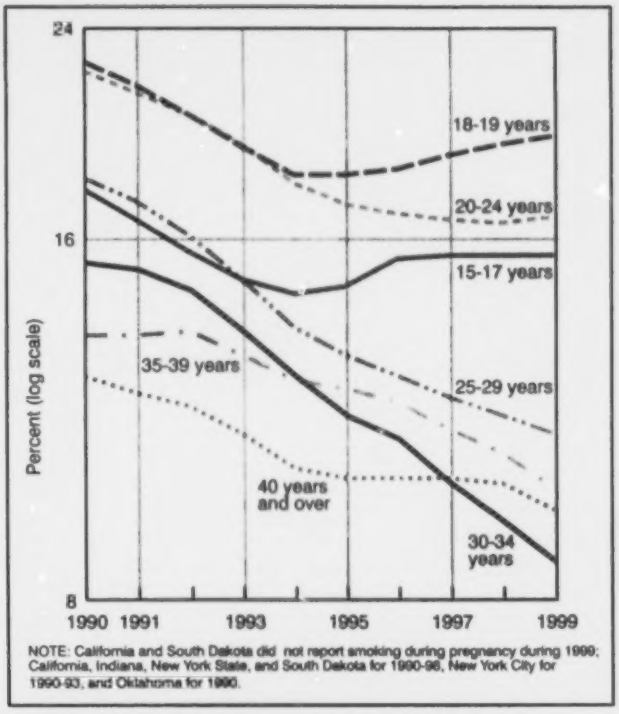
Maternal smoking among teenagers rose about 2 percent overall, the fifth consecutive year of increase, with all of the 1998–99 increase confined to older teenagers (up from 19.2 to 19.5 percent) **(figure 4)** (37). Between 1994 and 1996, smoking rates rose for younger teenagers 15–17 years as well as older teenagers. Since 1996, rates for young teenagers have been stable, whereas rates for older teenagers have risen 7 percent.

Smoking rates increased among non-Hispanic white and black teenagers 15–19 years in 1999; the rate for Hispanic teenagers declined to 4.6 percent. The smoking rate for non-Hispanic black teenagers was 7.2 percent in 1999, compared with 5.0 percent in 1994 when the rate began to rise (see table 30 for 1999 data.) The rate for non-Hispanic white teenagers increased to 30.1 percent; their rates were 4 to 5 times the rates for non-Hispanic black teenagers. Non-Hispanic white women aged 18–19 years had the highest smoking rate of any group, 30.7 percent, but the rate for younger non-Hispanic white teenagers was nearly as high, 28.7 percent (table 30).

The increase over the period 1994–99 in smoking among teenagers, especially older teenagers, has begun to impact rates for women in their early twenties, as older teenagers have turned 20 years and over. **Smoking rates for women aged 20–24 years increased in 1999** for the first time since this information first became available in 1989. Overall, the rate rose 1 percent to 16.7 percent, with increases measured for non-Hispanic white and black women, and Puerto Rican and Cuban women. The rate declined for Mexican women.

Smoking during pregnancy generally declined for women in age groups 25–54 years. Patterns of smoking rates and trends by age, race, and Hispanic origin are described in detail elsewhere (37).

Among smokers, **the proportion smoking at least half a pack of cigarettes daily** has declined steadily in recent years—to 30 percent



NOTE: California and South Dakota did not report smoking during pregnancy during 1999; California, Indiana, New York State, and South Dakota for 1990-98, New York City for 1990-93, and Oklahoma for 1990.

Figure 4. Percent of mothers who smoked during pregnancy by age: Total reporting areas, 1990–99

in 1999 (compared with 42 percent in 1990) (37). Information on the number of cigarettes smoked daily was reported in a comparable manner on the birth certificates of 46 States, the District of Columbia and New York City in 1999, comprising 81 percent of U.S. births. Non-Hispanic white mothers and older mothers are more likely than other mothers to smoke half a pack or more **(tables 29 and 31)**.

Smoking rates by maternal educational attainment continue to be highest for women with 9–11 years of education, 26 percent in 1999, and lowest for women with 4 years or more of college, 2 percent (table 31). Even among women aged 20 years and over, smoking rates were highest for mothers who attended but did not graduate from high school—29 percent overall and 48 percent of non-Hispanic white women (tabular data not shown).

Babies born to mothers who smoke during pregnancy are at greatly elevated risk of low birthweight (LBW), a finding documented in birth certificate data as well as in numerous other studies (44, 51). In 1999, 12.1 percent of infants born to smokers weighed less than 2,500 grams (5 lb 8 oz) compared with 7.2 percent of births to nonsmokers **(table 32)**. This substantial differential is found for every race and Hispanic origin group. Heavier smoking heightens the LBW risk, although LBW is elevated even among babies born to the lightest smokers (1 to 5 cigarettes daily), 11.1 percent (tabular data not shown) (50). Advancing maternal age exacerbates the risk, probably a consequence of the much greater cigarette consumption among older women **(table 29)**.

Alcohol use during pregnancy

Pregnancy and birth outcome can be jeopardized by maternal alcohol use during pregnancy. Even low to moderate alcohol use has been shown to jeopardize birth outcome, independent of other risk factors such as tobacco use and other maternal risk factors (52, 53). All States except California and South Dakota included items on alcohol use on their birth certificates in 1999. This reporting area accounted for 87 percent of U.S. births.

Alcohol use during pregnancy is substantially underreported on the birth certificate according to studies of birth certificate reporting and related surveys of pregnant women (34, 41). According to birth certificate data, alcohol use declined again in 1999 to just 1.0 percent of mothers reporting any alcohol use compared with 1.1 percent in 1998 and 4.1 percent in 1989, the first year this information was reported on the birth certificates (see **tables 24 and 25** for 1999 data). A study based on an analysis of responses by about 1,300 pregnant women in the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System found that about 15 percent of women used alcohol during pregnancy in 1995. The researchers also reported that although alcohol use declined from 1988 (23 percent) to 1992 (10 percent), there was a statistically significant rise to 15 percent in 1995 (54).

The nature of the birth certificate questions on alcohol use apparently has contributed to the underreporting because the questions focus on the number of drinks per week, whereas other studies inquire about drinks per month (54). Women who drink, but less than one drink per week, may report no alcohol use for the birth certificate question. The stigma associated with alcohol use also contributes to the underreporting (26, 54).

Medical services utilization

Prenatal care

The percent of women who began **prenatal care in the first trimester** of pregnancy rose slightly for 1998–99, from 82.8 to 83.2. Following a decade of little progress, the proportion of women entering care within the first 3 months of pregnancy has risen each year in the 1990's. (See **table D and tables 33–35** for 1999 data.) In 1999, 3.8 percent of all mothers received late or no care ("late care" is prenatal care beginning in the third trimester), compared with

Table D. First trimester prenatal care by race and Hispanic origin of mother: United States, 1980, 1985, 1990–99

Year	All races[1]	Non-Hispanic		Hispanic[2]
		White	Black	
1999	83.2	88.4	74.1	74.4
1998	82.8	87.9	73.3	74.3
1997	82.5	87.9	72.3	73.7
1996	81.9	87.4	71.5	72.2
1995	81.3	87.1	70.4	70.8
1994	80.2	86.5	68.3	68.9
1993	78.9	85.6	66.1	66.6
1992	77.7	84.9	64.0	64.2
1991	76.2	83.7	61.9	61.0
1990	75.8	83.3	60.7	60.2
1989	75.5	82.7	59.9	59.5
1985	76.2	---	---	---
1980	76.3	---	---	---

--- Data not available.
[1]Includes races other than white and black and origin not stated.
[2]Includes all persons of Hispanic origin of any race.

3.9 percent in 1998. The percent of women with late or no care has fallen from 6.1 percent since 1990. The benefits of prenatal care to pregnancy outcome are difficult to measure (55, 56), but appropriate care can promote healthier pregnancies by managing preexisting medical conditions, providing health behavior advice, and assessing the risk of poor pregnancy outcome (57).

Small gains in timely care were reported between 1998 and 1999 for the three largest **racial and ethnic groups**: non-Hispanic white (from 87.9 to 88.4 percent), non-Hispanic black (from 73.3 to 74.1 percent), and Hispanic women (from 74.3 to 74.4 percent), and for most subgroups. Whereas substantial improvements in care have been observed among all groups during the 1990's, improvement has been most pronounced for groups with lower levels of timely care. Between 1990 and 1999, levels of first trimester care rose by 20 percent or more among non-Hispanic black, American Indian, Hawaiian, Mexican, Puerto Rican, and Central and South American women. (See **tables E, 24, and 25**.) The larger gains for these groups have resulted in some narrowing of the prenatal care gap, but large differences among groups persist.

Of the 50 States and the District of Columbia, women living in New England had the highest levels of prenatal care utilization for 1999. At least 87 percent of women who gave birth in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont received care in the first trimester; less than 3 percent of New England residents received late or no care **(table 34)**.

The **Adequacy of Prenatal Care Utilization Index** (APNCU) is an alternative measure of prenatal care utilization developed to adjust for some of the weaknesses of the month care began and the Kessner Index (58, 59). The APNCU is based on the month that prenatal care began and the number of prenatal visits, adjusting for gestational age. For 1999 the APNCU shows an appreciable rise in the percent of women with intensive use of care (women for whom the number of visits exceeded the American College of Obstetricians and Gynecologists' recommendations by a ratio of observed to expected visits of at least 110 percent) from 31.0 to 31.6 percent. All other levels of care, that is, adequate, intermediate and inadequate, were down slightly **(table F)**. For 1990–99, the largest changes in utilization were for intensive use of care (up 28 percent) and inadequate care (down 33 percent).

Table E. Percent of women with care beginning in the first trimester of pregnancy by specified race and Hispanic origin of mother: United States, 1990 and 1999

	Percent first trimester care		Percent change
	1999	1990	1990–99
Total, all races[1]	83.2	75.8	10
Cuban	91.4	84.8	8
Japanese	90.7	87.0	4
Chinese	88.5	81.3	9
Non-Hispanic white	88.4	83.3	6
Filipino	84.2	77.1	9
Hawaiian	79.6	65.8	21
Puerto Rican	77.7	63.5	22
Central and South American	77.6	61.5	26
Non-Hispanic black	74.1	60.7	22
Mexican	73.1	57.8	26
American Indian	69.5	57.9	20

[1]Includes births to race/Hispanic origin groups not shown separately.

Table F. Adequacy of Prenatal Care Utilization Index: United States, 1990, 1995–99

	Intensive use	Adequate	Intermediate	Inadequate
1999	31.6	43.1	13.6	11.7
1998	31.0	43.3	13.8	11.9
1997	30.7	43.3	14.0	12.0
1996	29.3	43.6	14.7	12.4
1995	28.8	43.7	14.7	12.8
1990	24.6	42.3	15.7	17.4

NOTE: See reference 58 for information on calculation of this measure; also see Technical notes of this report.

Obstetric procedures

Six specific obstetric procedures are reported on the birth certificate. Rates of four of these procedures have been rising steadily every year since 1989 (60, 61) **(figure 5)**. In 1999 the most prevalent procedure, electronic fetal monitoring, was reported for nearly 3.3 million births, or 84 percent of all live births in the United States **(table 36)**, a 15-percent increase over 1990. It has been shown that use of obstetric procedures may be underreported on the birth certificate (62–64).

At least 66 percent of mothers who had live births in 1999 received ultrasound, a 26-percent increase since 1990. The overall rates per 1,000 live births of stimulation of labor and induction of labor in 1999 were 179 (17.9 percent, a 58-percent increase since 1990) and 198 (19.8 percent, twice the 1990 levels), respectively **(figure 6)**. As would be expected, induction rates increase with advancing gestational age, but rates have been rising for all gestation groups.

The overall rate for tocolysis has been slowly increasing, from 1.6 percent in 1990 to 2.4 percent in 1999 (a 50-percent increase). Tocolytics (agents that decrease uterine activity) are used in the management of preterm labor (33).

The overall rate for amniocentesis was 26.5 per 1,000 births (2.7 percent) in 1999, down 21 percent from 1990 **(figure 5)**. Use of amniocentesis rises with increasing maternal age. Since 1990, amniocentesis rates have generally decreased for all age groups.

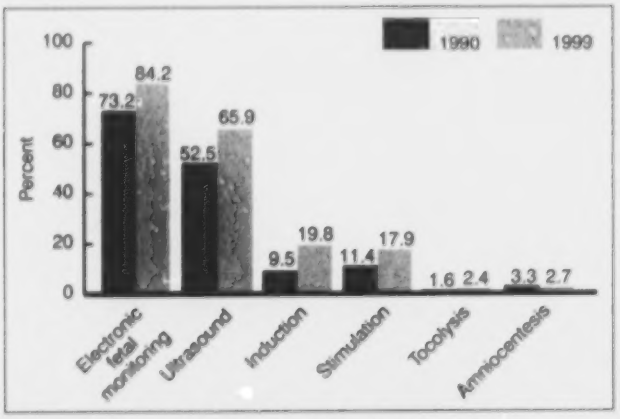


Figure 5. Percent of births with selected obstetric procedures: United States, 1990 and 1999

NOTES: Louisiana, Nebraska, and Oklahoma did not report induction in 1989. Oklahoma did not report induction in 1990. Rates are plotted on a log scale.

Figure 6. Rates of induction of labor by length of gestation in weeks: United States, 1989–99

Complications of labor and/or delivery

Of the 15 complications of labor and/or delivery reported on the birth certificate, the five most frequently reported in 1999 were meconium, moderate/heavy (55 per 1,000 live births), fetal distress (40 per 1,000), breech/malpresentation (39 per 1,000), dysfunctional labor (27 per 1,000), and premature rupture of membrane (PROM) (26 per 1,000) **(table 37)**. It has been shown that levels of complications of pregnancy may be underreported on the birth certificate (62–64).

Although infrequent, placental complications such as abruptio placenta and placenta previa are serious events. Abruptio placenta occurred in approximately 22,000 births (6 per 1,000). Although the exact etiology is unknown, major risk factors include prior abruptio placenta and hypertension (33,65). Placenta previa occurred in approximately 12,500 births (3 per 1,000). Risk factors for placenta previa include increasing age and multiparity (33).

Rates for all complications varied among the major racial/ethnic subgroups **(tables 27 and 28)**. Non-Hispanic black mothers had the highest rates for meconium (76 per 1,000) and fetal distress (51 per 1,000). Non-Hispanic white mothers had the highest rate of breech/malpresentation (44 per 1,000). American Indian and Cuban mothers had the highest rates of dysfunctional labor (36 and 40 per 1,000, respectively). PROM was reported most frequently for American Indian mothers (39 per 1,000). Mexican mothers had the lowest complication rates overall.

Complication rates generally varied by age, and this was notable for three of the most frequently reported complications **(table 37)**. The highest rates of meconium, fetal distress, and PROM were reported in the youngest and oldest mothers (under 20 years and above 34 years of age).

Attendant at birth and place of delivery

More than 9 out of 10 births in 1999 (91.7 percent) were attended by a physician in a hospital, making this arrangement by far the most typical **(table 38)**. However, the percent of births with this arrangement was slightly lower in 1999 than in 1998 (91.9 percent) and has declined from 98.4 percent in 1975. For physician-attended births, 4.4 percent were by **doctors of osteopathy (DO's)** while the remaining were attended by **doctors of medicine (MD's)**. Although small, the number and percent of births attended by DO's has grown steadily since 1989, the first year data on DO's were available from the birth certificate. The percent of births attended by **midwives** increased sharply between 1975 (1.0 percent) and 1999 (7.7 percent). A recent report found that nearly all of the growth in midwife-attended births was for those in hospitals (61). About 95 percent of midwife-attended births in 1999 were by **certified nurse midwives (CNM's)**.

About 99 percent of births in 1999 were delivered in hospitals, virtually unchanged in the last several decades. The majority of out-of-hospital births were in a residence (65 percent) while 27 percent were in a **freestanding birthing center**.

About 92 percent of births to non-Hispanic white and black women were attended by a physician in a hospital compared with 90 percent of births to Hispanic women. Hispanic women were more likely to have midwife-attended hospital births (9 percent) than were either non-Hispanic white or black women (6 and 7 percent, respectively).

Method of delivery

The **rate of cesarean delivery** increased 4 percent between 1998 and 1999 (from 21.2 per 100 live births to 22.0) and was 6 percent higher than the recent low point in 1996 (20.7). This was the third consecutive year that the rate increased after falling each year during 1989–96 **(table G and table 39)**. The rate in 1999 was still 4 percent lower than the rate of 22.8 in 1989, the first year this information was available on the birth certificate. The **primary cesarean rate** in 1999 (15.5 per 100 live births to women who had no previous cesarean) was 4 percent higher than in 1998 (14.9) and 6 percent higher than in 1997 (14.6). The rate had declined each year between 1989 and 1996 and remained steady between 1996 and 1997. The primary rate in 1999 was 4 percent lower than in 1989 (16.1).

Table G. Total and primary cesarean rates and vaginal births after previous cesarean delivery rates: United States, 1989–99

Year	Cesarean rate		
	Total[1]	Primary[2]	VBAC rate[3]
1999	22.0	15.5	23.4
1998	21.2	14.9	26.3
1997	20.8	14.6	27.4
1996	20.7	14.6	28.3
1995	20.8	14.7	27.5
1994	21.2	14.9	26.3
1993	21.8	15.3	24.3
1992	22.3	15.6	22.6
1991	22.6	15.9	21.3
1990	22.7	16.0	19.9
1989	22.8	16.1	18.9

[1]Percent of all live births by cesarean delivery.
[2]Number of primary cesareans per 100 live births to women who have not had a previous cesarean.
[3]Number of vaginal births after previous cesarean (VBAC) delivery per 100 live births to women with a previous cesarean delivery.

The rate of **vaginal birth after previous cesarean delivery (VBAC)** declined 11 percent between 1998 and 1999—from 26.3 per 100 women with a previous cesarean to 23.4. The VBAC rate has declined 17 percent between 1996 and 1999 after increasing by 50 percent between 1989 and 1996 (from 18.9 to 28.3).

Overall cesarean rates increased steadily by age of the mother and were more than twice as high for mothers 40–54 years of age (34.7) than for teenagers (15.0) **(table 40)**. Primary cesarean rates increased with additional age after age 24 years, to 24.6 for women 40–54 years of age. VBAC rates declined with increasing age—28.1 percent of teenagers who had a previous cesarean had a VBAC delivery compared with 18.2 percent of mothers 40–54 years of age. All age groups experienced increases in their total cesarean rate between 1998 and 1999 with mothers 30 years of age and over having slightly greater percent increases than younger women. All age groups experienced declines in VBAC rates between 1998 and 1999.

Non-Hispanic black women had a higher cesarean rate in 1999 (23.2) than either non-Hispanic white women (22.1) or Hispanic women (21.2). The percent increase between 1998 and 1999 was similar for non-Hispanic white and black women, about 4 percent each, compared with a 3-percent increase for Hispanic women. The primary cesarean rate for non-Hispanic black women (16.5) was higher than the rate for non-Hispanic white women (15.7) and Hispanic women (14.0). All groups experienced increases in their primary cesarean rate from 1998 to 1999, but the percent increase for non-Hispanic white women (4 percent) was slightly higher than for non-Hispanic black and Hispanic women (3 percent each). The VBAC rate in 1999 was highest for non-Hispanic white women (24.1), lowest for Hispanic women (20.3) and intermediate for non-Hispanic black women (23.2). The VBAC rate for each group declined between 1998 and 1999 with non-Hispanic white women having a greater percent decline (12 percent) than for the other groups (between 9 and 10 percent each).

American Indian and Asian or Pacific Islander (API) mothers had lower cesarean rates (18.9 and 20.2, respectively) than either non-Hispanic white or black mothers **(tables 24 and 25)**. With the exception of Filipino mothers, all specified API categories had lower rates of cesarean delivery than either non-Hispanic white or black mothers. The rate of cesarean delivery varied between 20.6 and 23.1 for all Hispanic subgroups except for Cuban mothers whose rate was much higher (33.2) (table 25).

There was considerable variation in cesarean rates by State with the highest rate reported for Mississippi (27.3); the rate for Puerto Rico was 37.8 **(table 41)**. (The rate for Hawaii, apparently the lowest at 13.8, is believed to be substantially underreported; see Technical notes.) There was also considerable variation in VBAC rates by State, from 36.3 in New Hampshire to 11.3 in Louisiana.

All of the selected medical risk factors in **table 42** were associated with overall cesarean rates that were higher than the national average. Cesarean rates for the medical risk factors ranged from 22.2 for mothers with anemia to 49.1 for mothers with eclampsia. Certain complications of labor and/or delivery are also associated with high cesarean rates. Nearly all births with cephalopelvic disproportion were cesarean deliveries (96.4) while the cesarean rates for breech/malpresentation (84.5) and placenta previa (81.7) were also very high.

The percent of births that were delivered by either forceps or vacuum extraction was 7.4 percent in 1999, 22 percent lower than the peak of 9.5 percent in 1994 (61). Births delivered by forceps declined 58 percent between 1989 and 1999, from 5.5 to 2.3 percent. Births delivered by vacuum extraction increased from 3.5 percent in 1989 to 6.2 percent in 1996 and 1997, a 77-percent increase. However, births delivered by vacuum extraction fell 18 percent between 1997 and 1999, to 5.1 percent. When only vaginal births are considered, the percent delivered by vacuum extraction fell 17 percent between 1997 (7.8 percent) and 1999 (6.5 percent) (tabular data not shown).

Infant health characteristics

Period of gestation

The **preterm birth rate** rose again in 1999 to 11.8 percent, from 11.6 percent in 1998. The proportion of infants born preterm (less than 37 completed weeks of gestation) has risen quite steadily during the 1990's from 10.6 percent, or by 11 percent. All of the current year rise, and most of that for the decade, has been among moderately preterm births (32–36 weeks). The rate of very preterm birth (less than 32 weeks) was stable at 1.96 percent for 1998–99 and has fluctuated only moderately since 1990. (See **tables 24, 25, 43, and 44**.)

More than 90 percent of all neonatal deaths occur among infants born preterm; more than three-fourths of these deaths occur among those born at fewer than 32 weeks of gestation (66). Preterm newborns are also more likely to be neurologically impaired than infants born at longer gestations (67). Preterm birth results from spontaneous preterm labor, premature rupture of the membranes (PROM), or medical induction (these categories are not mutually exclusive). The rate of PROM appears to have declined slightly, but medically induced preterm births have more than doubled during the 1990's (labor may be induced preterm when the mother's or the infant's health is presumed to be at risk). (See section on Obstetric procedures and figures 5 and 6.) A recent study concluded that substantial future reductions in preterm birth are unlikely until the mechanisms leading to preterm birth are better understood (67).

The incidence of preterm birth among non-Hispanic white infants climbed to 10.5 percent for 1999, compared with 10.2 percent in 1998, and 9.9 percent in 1997. Over the decade, the non-Hispanic white preterm rate has risen 24 percent (from 8.5 percent). Although this increase is influenced by the rise in the rate of multiple births (multiple births are about 6 times more likely to be born preterm than singleton births), preterm rates for singleton births have also been on the ascent (68) **(figure 7)**. Since 1990, the non-Hispanic white singleton preterm rate has risen from 7.5 to 8.8 percent. Again, most of the rise was among moderately preterm births; the very preterm rate fluctuated only from 1.11 to 1.16 percent.

The preterm birth rate for black non-Hispanic births was unchanged for 1997–99 at 17.6 percent. This rate has declined from a high of 19.0 percent reported for 1991. Although still substantially higher than that for non-Hispanic white births, the preterm and very preterm rates for singleton non-Hispanic black births have been trending downward, albeit slowly **(figure 7)**. The 1999 preterm rate for non-Hispanic black singleton births was 16.1 compared with 16.2 percent the previous year, and 17.9 percent in 1990. More fortuitously, very preterm births were down from 4.2 to 3.6 percent for 1990–99.

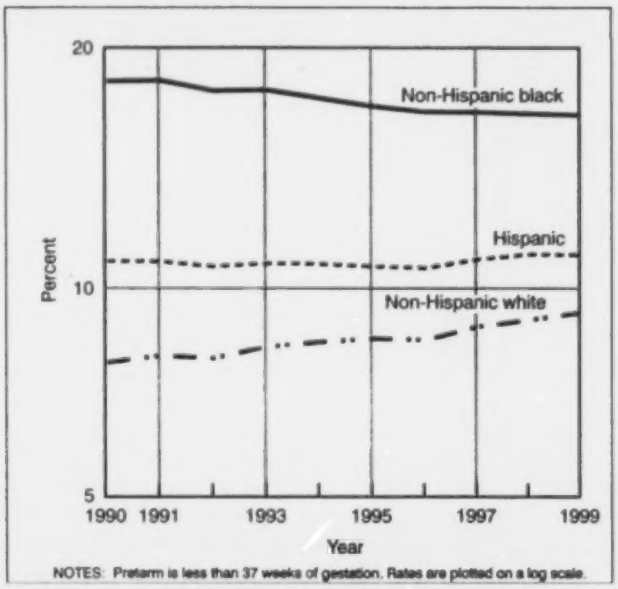


Figure 7. Rate of singleton preterm birth by race and Hispanic origin of mother: United States, 1990–99

The proportion of **Hispanic** preterm births was unchanged from the previous year at 11.4 percent. Over the decade, preterm singleton Hispanic births have risen slightly from 10.3 to 10.5 percent. There has been, however, essentially no change in the Hispanic rate of singleton very preterm births (1.5 percent in 1990 and 1999). Preterm rates for the Hispanic subgroups (all pluralities) ranged from 11.1 (Mexican) to 13.7 percent (Puerto Rican) for the current year. Rates for all of the subgroups increased between 1990 and 1999. (See **table 25** for 1999 data.)

The preterm birth rate for American Indians was 12.9 percent for 1999. Among the Asian or Pacific Islander subgroups, rates ranged from 7.6 percent for Chinese births to 12.4 percent for Filipino births **(table 24)**. Preterm birth levels among American Indian and each Asian or Pacific Islander subgroup have also risen during the 1990's.

Birthweight

The **percent low birthweight** (LBW) (less than 2,500 grams) was 7.6 for 1999, unchanged from 1998. LBW has been climbing fairly steadily since the mid-1980's (6.8 percent in 1985 and 1986), and has risen 9 percent (from 7.0 percent) since 1990. (See **tables 43–47**.) The percent **very low birthweight** (VLBW) (less than 1,500 grams) was 1.45 for 1999, also unchanged from the previous year. The rate of VLBW has also risen over the last two decades, from 1.15 percent in 1980, and from 1.27 percent in 1990. Low birthweight infants disproportionately suffer long-term morbidity and early death (69). Less than half of 1 percent of infants born at weights of more than 2,499 grams do not survive the first year of life, compared with about 2 percent of moderately LBW infants (1,500 to 2,499 grams), and 25 percent of VLBW infants (66).

The upward trends in LBW and VLBW of recent years have been strongly influenced by the upsurge in the multiple birth rate; twins and triplets and other higher order multiples are comprising a growing proportion of all births and tend to be born at much lower weights than singletons (70). In 1999, 6 percent of singletons weighed less than 2,500 grams compared with 57 percent of multiples.

The youngest mothers (less than 15 years) and the oldest (45 years of age and over) are most likely to have a LBW infant. See **figure 8**. Much of the low birthweight incidence among older mothers is associated with their greater preponderance of multiple births. (More than half of the LBW infants born to women 45 years of age and over in 1999 were born in a multiple birth.) When only singleton births are examined, women 45 years and over were less likely than the youngest mothers to bear a LBW child.

The impact of multiple births has been most pronounced for non-Hispanic white births, among whom multiple birth rates have risen the swiftest (70). Overall LBW for this group has climbed 18 percent, from 5.6 to 6.6 percent since 1990 **(table 44)**. Although much of this rise can be attributed to the influence of multiple births, singleton LBW has also risen (from 4.6 to 4.9 percent); this increase is largely unexplained **(table H)**.

Overall LBW among births to black mothers has declined from 13.3 to 13.1 percent between 1990 and 1999, but remains higher than levels reported for the early and mid-1980's (low of 12.6 percent). Singleton LBW for black infants however, has dropped to the lowest levels reported **(table H)**. Notwithstanding this recent decline, singleton black infants are twice as likely as singleton white and Hispanic infants to be born LBW.

Overall and singleton LBW among Hispanic births has been comparatively stable over the decade, rising only slightly from 6.1 to 6.4 percent (all pluralities) and 5.2 to 5.3 percent (singletons only) between 1990 and 1999. Among the Hispanic subgroups, LBW levels ranged from 5.9 percent for Mexican to 9.3 percent for Puerto Rican births. (See **table 25.**)

The incidence of low birthweight among **American Indian** infants was 7.1 percent for 1999. Among **Asian and Pacific Islander** subgroups LBW ranged from a low of 5.2 percent for Chinese to a high of 8.3 percent for Filipino births **(table 24)**.

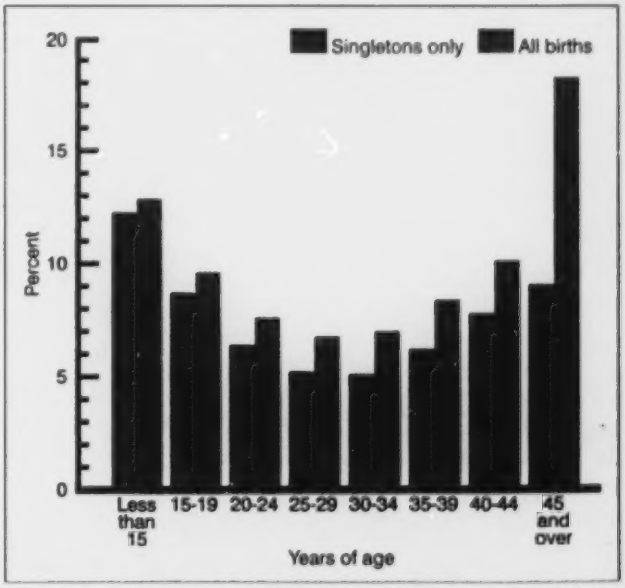


Figure 8. Percent low birthweight for singletons and for all pluralities by maternal age: United States, 1999

Table H. Percent low birthweight among singletons by race and Hispanic origin of mother: United States, 1980, 1985, and 1990–99

Year	Total	White		Black		Hispanic[1]
		Total	Non-Hispanic	Total	Non-Hispanic	
1999	6.05	5.02	4.93	11.32	11.44	5.34
1998	6.05	5.05	4.91	11.33	11.44	5.40
1997	6.08	5.02	4.95	11.37	11.46	5.43
1996	6.03	5.00	4.90	11.45	11.55	5.34
1995	6.05	4.98	4.87	11.59	11.66	5.36
1994	6.05	4.91	4.79	11.69	11.79	5.37
1993	6.05	4.83	4.70	11.81	11.90	5.34
1992[2]	5.93	4.71	4.59	11.84	11.91	5.22
1991[2]	5.99	4.74	4.61	12.09	12.15	5.29
1990[3]	5.90	4.68	4.56	11.86	11.92	5.23
1985	5.80	4.77	---	11.35	---	---
1980[4]	5.96	4.90	---	11.46	---	---

--- Data not available.

[1]Includes persons of Hispanic origin of any race.

[2]Excludes data for New Hampshire, which did not require reporting of Hispanic origin of mother.

[3]Excludes data for New Hampshire and Oklahoma, which did not require reporting of Hispanic origin of mother.

[4]Based on 100 percent of births in selected States and a 50-percent sample of births in all other States; see Technical notes.

NOTE: Low birthweight is less than 2,500 grams or 5 lb 8 oz.

The percent **macrosomia** (birthweight of at least 4,000 grams) declined from 10.1 to 9.9 percent between 1998 and 1999 (see **tables 24, 25 and 43** for 1999 data). The percent of births born at higher birthweights peaked at about 11 during the 1980's, but has declined in the 1990's.

The **median birthweight** for all births for 1999 was 3,350 grams (7 pounds, 7 ounces), unchanged since 1995. The median weight for white births was 3,390 grams and for black births 3,180 grams.

Low and very low birthweight rates vary widely **by State (tables 46 and 47)**. For 1999, LBW levels among non-Hispanic white births ranged from a low of 5.2 percent in Alaska and Hawaii to a high of 8.4 percent in Wyoming. Among States with at least 1,000 births to non-Hispanic black mothers, LBW rates for this group ranged from 10.2 percent in Washington State, to 16.1 percent in the District of Columbia.

Apgar score

The Apgar score, devised almost 50 years ago by Virginia Apgar, M.D., is a means of evaluating the physical condition of the newborn at 1 minute, 5 minutes, and if desired, at additional 5-minute intervals after delivery (32, 71, 72). The score is composed of measurements of five easily identifiable infant characteristics—heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each characteristic is assessed and assigned a value of 0–2, with 2 being optimum. The total score is the sum of the scores of the five components (71). A score of 0 to 3 indicates an infant in need of resuscitation; a score in the range of 4 to 6 is considered intermediate; a score of 7 or greater indicates that the neonate is in good to excellent physical condition. The **5-minute Apgar score**, especially a change in the score between 1 and 5 minutes, is a useful clinical indicator of newborn status, especially in those neonates who require resuscitation (32).

In 1999 all States except California and Texas collected information on the 5-minute Apgar score. Of the births in the reporting States (which accounted for 78 percent of all births in the U.S.), only 1.4 percent of babies had Apgar scores that were considered low (below 7) at 5 minutes after birth **(tables 24 and 25)**, unchanged since 1993.

In general, the variation among racial and ethnic groups in the percent of babies with low 5-minute Apgar scores was consistent with the percent of babies that were born preterm and/or low birthweight.

Abnormal conditions of the newborn

Since 1990, three of the eight specific abnormal conditions listed on the birth certificate have been most frequently reported: assisted ventilation less than 30 minutes, assisted ventilation of 30 minutes or longer, and hyaline membrane disease/respiratory distress syndrome (RDS) **(table 48)**.

The rate for assisted ventilation less than 30 minutes was 21 per 1,000 in 1999. The rate slowly increased from the 1990 rate of 13 per 1,000 and has remained at about the current rate since 1996. The rate of assisted ventilation of 30 minutes or longer was 10 per 1,000 in 1999. The overall rate of hyaline membrane disease (RDS) was 6 per 1,000 in 1999; this condition occurs most frequently in infants of less than 28 weeks gestation (72).

Rates of the other conditions have fluctuated slightly each year of the decade. During the 1990's, black infants in each age group have generally had the highest rates of assisted ventilation of 30 minutes or longer, while white infants in each age group have had the highest rates of birth injury. Risk factors for birth injury include macrosomia, cephalopelvic disproportion, and breech/malpresentation (72).

It has been shown that abnormal conditions may be underreported or incorrectly reported on the birth certificate (62, 73). Some abnormalities are difficult to recognize at birth (e.g., fetal alcohol syndrome); an abnormal condition present at birth may be diagnosed after the birth certificate has been completed (74, 75).

Congenital anomalies

Congenital anomalies are a major cause of neonatal deaths, physical defects, and metabolic diseases. For some anomalies, early ascertainment and immediate medical and surgical care is vital (72). Congenital anomalies are reported on the birth certificates of 49 States and the District of Columbia, accounting for 99 percent of 1999 births **(table 49)**. Because many of the congenital anomalies tracked on birth certificates occur infrequently, the rates shown in this report are calculated per 100,000 live births.

Congenital anomalies are underreported on the birth certificate (62, 76, 77). A number of factors limit complete reporting of such conditions, including recognizability and severity (62, 78–80). Serious malformations are more likely to be reported. Caution should also be used in comparing yearly rates for a specific anomaly as a small change in the number of anomalies reported can result in a relatively large change in rates.

Cleft lip/palate was reported at a rate of 81 per 100,000 births in 1999 compared with 88 in 1990. The rate of clubfoot has changed little during the 1990's and was 56 per 100,000 in 1999. The rate of Down's syndrome has generally been stable since 1993 (45.5 per 100,000 in 1999) **(table 49)**.

In 1992 the U.S. Public Health Service recommended that women of childbearing age increase consumption of the vitamin folic acid to

prevent spina bifida and anencephalus. Four years later, the Food and Drug Administration mandated that by January 1998 all cereal grain products be fortified with folic acid. In 1999 survey results showed increased folate status among women of childbearing age (81,82). The rate of spina bifida/meningocele has steadily declined from the 1995 rate of 28.1 per 100,000 to 20.1. Since 1994, the rate of anencephalus has ranged between 11 (1994 and 1999) and 13 per 100,000 (1996–97).

For many anomalies, rates vary widely with maternal age **(table 49)**. For example, rates for Down's syndrome and heart malformations have consistently been higher for mothers aged 35 years and over, according to birth certificate data in the 1990's.

Multiple births

The number of births in twin deliveries continued to climb in 1999, rising 3 percent to 114,307 births. **The twin birth rate** (the number of twin births per 1,000 live births) was also up for 1998–99, rising 3 percent, to 28.9 per 1,000 births. Since 1980 the number of twins has risen 67 percent (from 68,339), and the twin birth rate by 53 percent (from 18.9) (70). (See **table 50** for 1999 data.)

Reversing a long-time trend, the number and rate of **triplet and other higher order multiple births** (triplet/+) dropped by 4 percent for 1999 to 7,321, or 184.9 triplet/+ births per 100,000 live births. Declines in all of the higher-order pluralities, that is, triplets, quadruplets, and quintuplet and other higher order multiples, were reported **(table J)**. The number and rate of triplet/+ had been escalating rapidly since 1980, soaring from 1,337 births and a rate of only 37.0 (70). (See **figure 9**.)

The extraordinary rise in multiple births over the last two decades, especially in triplet/+ births, has been associated with two related trends: advances in, and greater access to assisted reproductive medicine (i.e., ovulation-inducing drugs and assisted reproductive techniques (ART) such as *in vitro* fertilization (IVF)), and with the older age of childbearing (women in their thirties are more likely to have a multiple birth even without the help of fertility therapies) (83–85). A recent study estimated that the majority of triplet/+ births in 1997 were the result of ART (43 percent) and ovulation-inducing drugs (38 percent)—only about 20 percent of triplet/+ births were spontaneously conceived (86).

There was a pronounced decline in triplet/+ births to non-Hispanic white women (262.8 to 251.8 per 100,000 births for 1998–99), but the sudden decline for 1999 was not observed among all age and racial/ethnic groups; women 35–39 years of age were *more* likely to have a triplet/+ birth in 1999 compared with 1998, as were non-Hispanic black (95.2 for 1999) and Hispanic women (76.3 for 1999). Although some reduction in the overall number and rate of triplet/+ births is expected as the population of women aged 30 years and over declines, the sudden downturn in age-specific triplet/+ birth rates may signal a more fundamental shift. In 1999 The American College of Obstetricans and Gynecologists and The American Society of Reproductive Medicine issued recommendations to help prevent triplet/+ births because they are at elevated risk of poor outcomes (87, 88). Recent refinements to fertility-enhancing therapies, particularly to IVF, which lower the risk of multifetal pregnancy, also may affect the future incidence of "multiple multiples" (87–90).

Twin birth rates rose between 1998 and 1999 for nearly all age groups, and for non-Hispanic white (31.5 per 1,000) and non-Hispanic black women (32.1). A small decline in the twinning rate for Hispanic women was reported (20.1).

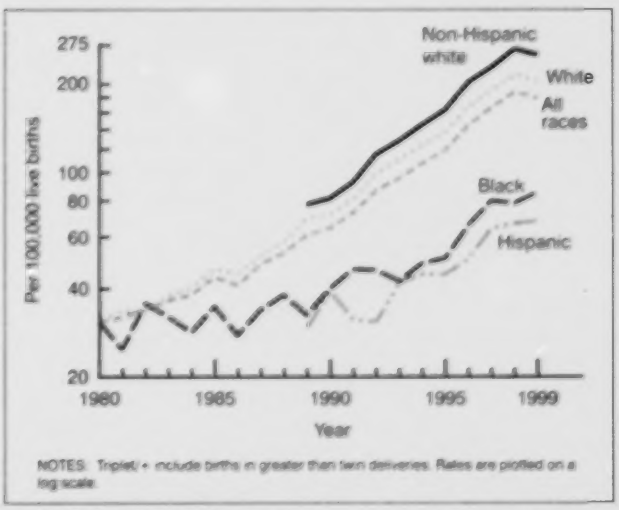
Table J. Numbers of twin, triplet, quadruplet, and quintuplet and other higher order multiple births: United States, 1989–99

Year	Twins	Triplets	Quadruplets	Quintuplets and other higher order multiples[1]
1999	114,307	6,742	512	67
1998	110,670	6,919	627	79
1997	104,137	6,148	510	79
1996	100,750	5,298	560	81
1995	96,736	4,551	365	57
1994	97,064	4,233	315	46
1993	96,445	3,834	277	57
1992	95,372	3,547	310	26
1991	94,779	3,121	203	22
1990	93,865	2,830	185	13
1989	90,118	2,529	229	40

[1]Quintuplets, sextuplets, and higher order multiple births are not differentiated in the national data set.

Historically, twin birth rates have been highest for mothers 35–39 years of age. In 1999 however, twin birth rates rose steadily with maternal age and were highest for women aged 50–54 years (data not shown). Since 1990, the twin birth rate has risen 80 percent among women 40–44 years of age (from 24.7 to 44.5 per 1,000), and almost 600 percent among women aged 45–49 years (from 23.8 to 155.7), compared to only a 6 percent rise for women under age 20 years (14.3 to 15.2) **(figure 10)**. Comparable trend data are not available for women aged 50–54 years, but in 1999 more than a third of births (34 percent) to women in the oldest age group were born in a twin delivery (data not shown).

Multiple births present substantial perinatal risk to both mother and infant, and risk increases with plurality. Mothers of multiples suffer more ante- and postpartum complications than singletons and their infants are born considerably smaller; on average, twins weigh about a third less, and triplets about half of singletons (91). Multiples are more likely to be admitted to neonatal intensive care and are less likely to survive the first year of life (66, 91).



NOTES: Triplet/+ include births in greater than twin deliveries. Rates are plotted on a log scale.

Figure 9. Triplet/+ birth rates by race and Hispanic origin of mother: United States, 1980–99

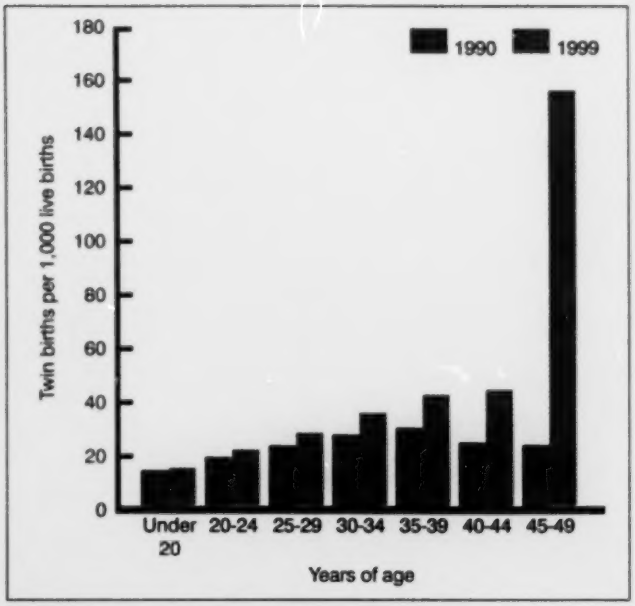


Figure 10. Twin birth rates by age of mother: United States, 1990 and 1999

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Geographic area:																									
States[1]										10	11	12							19						
United States or all reporting areas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Years:																									
Current year only		2	3				7	8		10	11	12	13	14	15	16	17		19		21	22	23	24	25
Trend	1			4	5	6			9									18		20					
Type of entry:																									
Number of births	1	2				6	7			10	11	12	13	14	15	16	17		19		21	22			
Rates or other measures	1		3	4	5	6		8	9	10			13	14	15	16	17	18	19	20	21	22	23	24	25
Characteristics:																									
Age of father																				20					
Age of mother		2	3	4			7		9								17	18			21				
Alcohol use																								24	25
Apgar score																								24	25
Birthweight																							23	24	25
Day of week																16									
Education													13	14							21				
Gestational age																						22	23	24	25
Hispanic origin of mother						[6]6	[4]7	[4]8	[4]9			[4]12		[4]14			[6]17	[6]18	[6]19		[6]21	[6]22	[4]23		[4]25
Live-birth order		2	3		5		7	8					13	14											
Method of delivery																16								24	25
Month of birth															15										
Nativity of mother													13	14										24	25
Prenatal care																								24	25
Race of father																				[3]20					
Race of mother	[2]1	[2]2	[2]3	[2]4	[3]5	[4]6	[4]7	[4]8	[4]9		[2]11	[4]12	[5]13	[4]14	[3]15	[3]16	[6]17	[6]18	[6]19		[3]21	[6]22	[4]23	[5]24	[4]25
Sex of child													13	14											
Teenage mothers										10			13	14											
Tobacco use																								24	25
Unmarried mothers													13	14			17	18	19						
Weight gain during pregnancy																						22	23	24	25

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TABLE	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Geographic area:																									
States[1]									34							41					46	47			
United States or all reporting areas	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Years:																									
Current year only	26	27	28	29	30	31	32	33	34	35	36	37	38		40	41	42	43		45	46	47	48	49	50
Trend														39					44						
Type of entry:																									
Number of births	26	27	28	29	30	31		33		35	36	37	38	39	40		42	43		45	46	47	48	49	50
Rates or other measures	26	27	28	29	30	31	32	33	34	35	36	37		39	40	41	42	43	44	45	46	47	48	49	50
Characteristics:																									
Abnormal conditions of newborn																									
Age of mother	26			29	30		32	33			36	37			40					45			48	49	50
Attendant at birth													38												
Birthweight							32											43	44	45	46	47			
Complications of labor		27	28									37					42							49	
Congenital anomalies																									
Education						31																			
Gestational age																		43	44						[6]50
Hispanic origin of mother			[4]28		[4]30	[5]31	[6]32	[6]33	[6]34	[6]35			[6]38	[6]39	[6]40	[6]41		[6]43	[6]44	[6]45	[6]46	[6]47			
Medical risk factors	26	27	28														42								
Method of delivery														39	40	41	42								
Obstetric procedures		27	28								36														
Place of delivery													38												50
Multiple births																									
Prenatal care									33	34	35														
Race of mother	[3]26	[5]27	[4]28	[3]29	[4]30	[3]31	[6]32	[6]33	[6]34	[6]35	[3]36	[3]37	[5]38	[6]39	[6]40	[6]41		[6]43	[3]44	[6]45	[6]46	[6]47	[3]48	[3]49	[6]50
Tobacco use				29	30	31	32																		

[1]Includes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas; data for American Samoa not available for tables 34 and 41.
[2]Includes white, black, American Indian, Asian or Pacific Islander.
[3]Includes white and black.
[4]Includes Mexican, Puerto Rican, Cuban, Central and South American, other and unknown Hispanic, non-Hispanic white, and non-Hispanic black.
[5]Includes white, black, American Indian, Chinese, Japanese, Hawaiian, Filipino, and other Asian and Pacific Islanders.
[6]Includes Hispanic, non-Hispanic white, and non-Hispanic black.

Table 1. Live births, birth rates, and fertility rates, by race: United States, specified years 1940-55 and each year, 1960-99

[Birth rates are live births per 1,000 population in specified group. Fertility rates are live births per 1,000 women aged 15-44 years in specified group. Population enumerated as of April 1 for census years and estimated as of July 1 for all other years. Beginning with 1970, excludes births to nonresidents of the United States]

Year	Number					Birth rate					Fertility rate				
	All races [1]	White	Black	American Indian [2]	Asian or Pacific Islander	All races [1]	White	Black	American Indian [2]	Asian or Pacific Islander	All races [1]	White	Black	American Indian [2]	Asian or Pacific Islander
Registered births															
Race of mother:															
1999	3,959,417	3,132,501	605,970	40,170	180,776	14.5	13.9	17.4	16.8	16.7	65.9	65.1	70.1	69.7	65.6
1998	3,941,553	3,118,727	609,902	40,272	172,652	14.6	14.0	17.7	17.1	16.4	65.6	64.6	71.0	70.7	64.0
1997	3,880,894	3,072,640	599,913	38,572	169,769	14.5	13.9	17.7	16.6	16.9	65.0	63.9	70.7	69.1	66.3
1996	3,891,494	3,093,057	594,781	37,880	165,776	14.7	14.1	17.8	16.6	17.0	65.3	64.3	70.7	68.7	65.9
1995	3,899,589	3,098,885	603,139	37,278	160,287	14.8	14.2	18.2	16.6	17.3	65.6	64.4	72.3	69.1	66.4
1994	3,952,767	3,121,004	636,391	37,740	157,632	15.2	14.4	19.5	17.1	17.5	66.7	64.9	76.9	70.9	66.8
1993	4,000,240	3,149,833	658,875	38,732	152,800	15.5	14.7	20.5	17.8	17.7	67.6	65.4	80.5	73.4	66.7
1992	4,065,014	3,201,678	673,633	39,453	150,250	15.9	15.0	21.3	18.4	18.0	68.9	66.5	83.2	75.4	67.2
1991	4,110,907	3,241,273	682,602	38,841	145,372	16.3	15.4	21.9	18.3	18.2	69.6	67.0	85.2	75.1	67.6
1990	4,158,212	3,290,273	684,336	39,051	141,635	16.7	15.8	22.4	18.9	19.0	70.9	68.3	86.8	76.2	69.6
1989	4,040,958	3,192,355	673,124	39,478	133,075	16.4	15.4	22.3	19.7	18.7	69.2	66.4	86.2	79.0	68.2
1988	3,909,510	3,102,083	638,562	37,088	129,035	16.0	15.0	21.5	19.3	19.2	67.3	64.5	82.6	76.8	70.2
1987	3,809,394	3,043,828	611,173	35,322	116,560	15.7	14.9	20.8	19.1	18.4	65.8	63.3	80.1	75.6	67.1
1986	3,756,547	3,019,175	592,910	34,169	107,797	15.6	14.8	20.5	19.2	18.0	65.4	63.1	78.9	75.9	66.0
1985	3,760,561	3,037,913	581,824	34,037	104,606	15.8	15.0	20.4	19.8	18.7	66.3	64.1	78.8	78.6	68.4
1984 [3]	3,669,141	2,967,100	568,138	33,256	98,926	15.6	14.8	20.1	20.1	18.8	65.5	63.2	78.2	79.8	69.2
1983 [3]	3,638,933	2,946,468	562,624	32,881	95,713	15.6	14.8	20.2	20.6	19.5	65.7	63.4	78.7	81.8	71.7
1982 [3]	3,680,537	2,984,817	568,506	32,436	93,193	15.9	15.1	20.7	21.1	20.3	67.3	64.8	80.9	83.6	74.8
1981 [3]	3,629,238	2,947,679	564,955	29,688	84,553	15.8	15.0	20.8	20.0	20.1	67.3	64.8	82.0	79.6	73.7
1980 [3]	3,612,258	2,936,351	568,080	29,389	74,355	15.9	15.1	21.3	20.7	19.9	68.4	65.6	84.7	82.7	73.2
Race of child:															
1980 [3]	3,612,258	2,898,732	589,616	36,797	---	15.9	14.9	22.1	---	---	68.4	64.7	88.1	---	---
1979 [3]	3,494,398	2,808,420	577,855	34,269	---	15.6	14.5	22.0	---	---	67.2	63.4	88.3	---	---
1978 [3]	3,333,279	2,681,116	551,540	33,160	---	15.0	14.0	21.3	---	---	65.5	61.7	86.7	---	---
1977 [3]	3,326,632	2,691,070	544,221	30,500	---	15.1	14.1	21.4	---	---	66.8	63.2	88.1	---	---
1976 [3]	3,167,788	2,567,614	514,479	29,009	---	14.6	13.6	20.5	---	---	65.0	61.5	85.8	---	---
1975 [3]	3,144,198	2,551,996	511,581	27,546	---	14.6	13.6	20.7	---	---	66.0	62.5	87.9	---	---
1974 [3]	3,159,958	2,575,792	507,162	26,631	---	14.8	13.9	20.8	---	---	67.8	64.2	89.7	---	---
1973 [3]	3,136,965	2,551,030	512,597	26,464	---	14.8	13.8	21.4	---	---	68.6	64.9	93.6	---	---
1972 [3]	3,258,411	2,655,558	531,329	27,368	---	15.6	14.5	22.5	---	---	73.1	68.9	99.9	---	---
1971 [4]	3,555,970	2,919,746	564,960	27,148	---	17.2	16.1	24.4	---	---	81.6	77.3	109.7	---	---
1970 [4]	3,731,386	3,091,264	572,362	25,864	---	18.4	17.4	25.3	---	---	87.9	84.1	115.4	---	---
1969 [4]	3,600,206	2,993,614	543,132	24,008	---	17.9	16.9	24.4	---	---	86.1	82.2	112.1	---	---
1968 [4]	3,501,564	2,912,224	531,152	24,156	---	17.6	16.6	24.2	---	---	85.2	81.3	112.7	---	---
1967 [5]	3,520,959	2,922,502	543,976	22,665	---	17.8	16.8	25.1	---	---	87.2	82.8	118.5	---	---
1966 [4]	3,606,274	2,993,230	558,244	23,014	---	18.4	17.4	26.2	---	---	90.8	86.2	124.7	---	---
1965 [4]	3,760,358	3,123,860	581,126	24,066	---	19.4	18.3	27.7	---	---	96.3	91.3	133.2	---	---
1964 [4]	4,027,490	3,369,160	607,556	24,382	---	21.1	20.0	29.5	---	---	104.7	99.8	142.6	---	---
1963 [4, 6]	4,098,020	3,326,344	580,658	22,358	---	21.7	20.7	---	---	---	108.3	103.6	---	---	---
1962 [4, 6]	4,167,362	3,394,068	584,610	21,968	---	22.4	21.4	---	---	---	112.0	107.5	---	---	---
1961 [4]	4,268,326	3,600,864	611,072	21,464	---	23.3	22.2	---	---	---	117.1	112.3	---	---	---
1960 [4]	4,257,850	3,600,744	602,264	21,114	---	23.7	22.7	31.9	---	---	118.0	113.2	153.5	---	---
Births adjusted for underregistration															
Race of child:															
1955	4,097,000	3,485,000	---	---	---	25.0	23.8	---	---	---	118.3	113.7	---	---	---
1950	3,632,000	3,108,000	---	---	---	24.1	23.0	---	---	---	106.2	102.3	---	---	---
1945	2,858,000	2,471,000	---	---	---	20.4	19.7	---	---	---	85.9	83.4	---	---	---
1940	2,559,000	2,199,000	---	---	---	19.4	18.6	---	---	---	79.9	77.1	---	---	---

--- Data not available.
1 For 1960-91 includes births to races not shown separately.
2 Includes births to Aleuts and Eskimos.
3 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.
4 Based on a 50-percent sample of births.
5 Based on a 20- to 50-percent sample of births.
6 Figures by race exclude New Jersey.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 2. Live births by age of mother, live-birth order, and race of mother: United States, 1999

[Live-birth order refers to number of children born alive to mother]

Live-birth order and race of mother	All ages	Age of mother												
		Under 15 years	15-19 years						20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years
			Total	15 years	16 years	17 years	18 years	19 years							
All races	3,959,417	9,054	476,050	22,896	51,516	89,176	133,988	178,474	981,929	1,078,252	892,400	434,294	83,090	4,174	174
1st child	1,568,639	6,821	371,024	21,811	47,039	75,906	103,752	122,516	448,406	392,579	253,400	95,757	17,606	992	54
2d child	1,285,592	162	85,488	910	3,911	11,489	25,110	44,068	338,946	373,657	321,925	141,249	23,168	958	39
3d child	653,070	7	14,676	33	246	1,154	3,851	9,392	137,418	195,062	186,450	101,454	17,241	729	33
4th child	250,404	1	1,872	4	15	89	426	1,338	39,701	73,300	75,501	49,454	10,096	458	21
5th child	91,287	-	238	-	1	6	51	180	10,019	25,193	28,360	21,501	5,688	284	4
6th child	37,458	-	29	2	2	3	5	17	2,381	8,956	12,354	10,332	3,200	202	4
7th child	16,919	-	6	-	-	-	2	4	545	3,181	5,643	5,402	2,006	127	9
8th child and over	17,898	-	3	-	-	-	1	2	191	1,869	4,861	6,959	3,614	395	6
Not stated	18,150	63	2,714	136	302	529	790	957	4,322	4,455	3,906	2,186	471	29	4
White	3,132,501	4,739	337,888	14,193	34,649	62,782	96,254	130,010	748,371	873,654	739,948	356,959	67,419	3,385	138
1st child	1,262,603	4,618	269,011	13,586	32,055	54,498	76,643	92,229	356,004	326,468	211,364	79,619	14,619	858	42
2d child	1,034,524	75	57,177	473	2,207	7,209	16,620	30,668	261,340	309,269	270,644	116,214	18,986	784	35
3d child	517,012	2	8,498	21	130	618	2,128	5,601	96,969	155,912	156,546	84,605	13,863	587	30
4th child	190,472	-	903	3	5	44	197	654	24,322	54,400	61,398	40,837	8,226	369	17
5th child	65,205	-	120	-	1	3	24	92	5,057	16,577	21,610	17,132	4,490	215	4
6th child	25,466	-	11	2	1	1	1	6	984	5,121	8,725	7,942	2,523	157	3
7th child	11,085	-	3	-	-	-	1	2	208	1,590	3,699	3,961	1,526	94	4
8th child and over	11,573	-	1	-	-	-	-	1	92	774	2,724	4,873	2,807	301	1
Not stated	14,561	44	2,164	108	250	409	640	757	3,395	3,543	3,238	1,776	379	20	2
Black	605,970	3,977	121,166	7,865	14,942	23,112	32,948	42,299	193,211	138,868	91,486	47,277	9,564	409	12
1st child	228,027	3,866	88,631	7,438	13,221	18,631	23,408	25,933	71,330	34,529	19,696	8,354	1,555	60	6
2d child	179,502	87	25,375	392	1,562	3,852	7,606	11,963	65,484	44,233	28,479	13,500	2,255	87	2
3d child	106,259	4	5,661	9	105	483	1,572	3,492	35,748	31,050	20,736	10,902	2,082	75	1
4th child	48,822	1	890	1	10	37	202	640	13,805	15,640	10,778	6,348	1,308	52	-
5th child	21,487	-	110	-	-	2	25	83	4,481	7,264	5,274	3,437	872	49	-
6th child	9,817	-	17	-	1	2	4	10	1,250	3,282	2,919	1,822	502	25	-
7th child	4,695	-	3	-	-	-	1	2	302	1,350	1,544	1,112	365	18	1
8th child and over	4,799	-	2	-	-	-	1	1	85	912	1,635	1,561	564	40	-
Not stated	2,562	19	477	25	43	105	129	175	726	608	425	241	61	3	2
American Indian [1]	40,170	198	7,915	440	979	1,565	2,200	2,731	13,225	9,641	5,701	2,844	621	25	-
1st child	14,369	198	6,047	419	907	1,302	1,650	1,769	4,874	1,959	876	348	63	4	-
2d child	10,931	-	1,540	20	58	225	472	765	4,697	2,743	1,310	537	96	8	-
3d child	7,063	-	258	-	7	28	61	162	2,435	2,421	1,263	571	113	2	-
4th child	3,778	-	26	-	-	1	7	18	860	1,372	937	491	89	3	-
5th child	1,895	-	2	-	-	1	-	1	238	652	597	319	85	2	-
6th child	933	-	-	-	-	-	-	-	49	260	337	227	58	2	-
7th child	511	-	-	-	-	-	-	-	9	119	192	145	44	2	-
8th child and over	502	-	-	-	-	-	-	-	4	74	167	185	70	2	-
Not stated	188	-	42	1	7	8	10	16	59	41	22	21	3	-	-
Asian or Pacific Islander	180,776	140	9,081	398	946	1,717	2,586	3,434	27,122	56,089	55,265	27,214	5,486	355	24
1st child	83,640	139	7,335	368	856	1,475	2,051	2,585	16,198	29,623	21,464	7,436	1,369	70	6
2d child	60,635	-	1,396	25	84	203	412	672	7,425	17,412	21,492	10,998	1,831	79	2
3d child	22,736	1	259	3	4	25	90	137	2,266	5,679	7,905	5,376	1,183	65	2
4th child	7,332	-	53	-	-	7	20	26	714	1,888	2,388	1,778	473	34	4
5th child	2,700	-	6	-	-	-	2	4	243	700	879	613	241	18	-
6th child	1,242	-	1	-	-	-	-	1	98	293	373	341	117	18	1
7th child	628	-	-	-	-	-	-	-	26	122	208	184	71	13	4
8th child and over	1,024	-	-	-	-	-	-	-	10	109	335	340	173	52	5
Not stated	839	-	31	2	2	7	11	9	142	263	221	148	28	6	-

- Quantity zero.
[1] Includes births to Aleuts and Eskimos.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 3. Fertility rates and birth rates by age of mother, live-birth order, and race of mother: United States, 1999

[Rates are live births per 1,000 women in specified age and racial group. Live-birth order refers to number of children born alive to mother. Figures for live-birth order not stated are distributed]

Live-birth order and race of mother	15-44 years [1]	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [2]
			Total	15-17 years	18-19 years						
All races	65.9	0.9	49.6	28.7	80.3	111.0	117.8	89.6	38.3	7.4	0.4
1st child	26.6	0.9	38.9	25.5	58.4	50.9	43.1	25.6	8.5	1.6	0.1
2d child	21.5	0.0	9.0	2.9	17.9	38.5	41.0	32.5	12.5	2.1	0.1
3d child	10.9	*	1.5	0.3	3.4	15.6	21.4	18.8	9.0	1.5	0.1
4th child	4.2	*	0.2	0.0	0.5	4.5	8.0	7.6	4.4	0.9	0.0
5th child	1.5	*	0.0	*	0.1	1.1	2.8	2.9	1.9	0.5	0.0
6th and 7th child	0.9	*	0.0	*	0.0	0.3	1.3	1.8	1.4	0.5	0.0
8th child and over	0.3	*	*	*	*	0.0	0.2	0.5	0.6	0.3	0.0
White	65.1	0.6	44.6	24.8	73.5	107.0	121.1	93.2	38.8	7.3	0.4
1st child	26.4	0.6	35.7	22.4	55.2	51.1	45.4	26.7	8.7	1.6	0.1
2d child	21.6	0.0	7.6	2.2	15.5	37.5	43.0	34.2	12.7	2.1	0.1
3d child	10.8	*	1.1	0.2	2.5	13.9	21.7	19.8	9.2	1.5	0.1
4th child	4.0	*	0.1	0.0	0.3	3.5	7.6	7.8	4.5	0.9	0.0
5th child	1.4	*	0.0	*	0.0	0.7	2.3	2.7	1.9	0.5	0.0
6th and 7th child	0.8	*	*	*	*	0.2	0.9	1.6	1.3	0.4	0.0
8th child and over	0.2	*	*	*	*	0.0	0.1	0.3	0.5	0.3	0.0
Black	70.1	2.6	81.0	52.0	122.6	141.7	101.9	64.5	30.8	6.5	0.3
1st child	26.5	2.6	59.5	44.7	80.8	52.5	25.5	13.9	5.5	1.1	0.1
2d child	20.9	0.1	17.0	6.6	32.1	48.2	32.6	20.2	8.8	1.6	0.1
3d child	12.4	*	3.8	0.7	8.3	26.3	22.9	14.7	7.1	1.4	0.1
4th child	5.7	*	0.6	0.1	1.4	10.2	11.5	7.6	4.2	0.9	0.0
5th child	2.5	*	0.1	*	0.2	3.3	5.4	3.7	2.2	0.6	0.0
6th and 7th child	1.7	*	0.0	*	*	1.1	3.4	3.2	1.9	0.6	0.0
8th child and over	0.6	*	*	*	*	0.1	0.7	1.2	1.0	0.4	0.0
American Indian [3]	69.7	1.6	67.8	41.4	110.6	137.1	102.4	64.3	30.7	7.1	0.3
1st child	25.0	1.6	52.1	36.6	77.1	50.8	20.9	9.9	3.8	0.7	*
2d child	19.0	*	13.3	4.2	27.9	48.9	29.3	14.8	5.8	1.1	*
3d child	12.3	*	2.2	0.5	5.0	25.4	25.8	14.3	6.2	1.3	*
4th child	6.6	*	0.2	*	0.6	9.0	14.6	10.6	5.3	1.0	*
5th child	3.3	*	*	*	*	2.5	7.0	6.8	3.5	1.0	*
6th and 7th child	2.5	*	*	*	*	0.6	4.0	6.0	4.1	1.2	*
8th child and over	0.9	*	*	*	*	*	0.8	1.9	2.0	0.8	*
Asian or Pacific Islander	65.6	0.3	22.3	12.3	38.0	70.0	116.4	109.3	54.6	11.6	0.9
1st child	30.5	0.3	18.1	10.9	29.4	42.0	61.8	42.6	15.0	2.9	0.2
2d child	22.1	*	3.4	1.3	6.9	19.3	36.3	42.7	22.2	3.9	0.2
3d child	8.3	*	0.6	0.1	1.4	5.9	11.8	15.7	10.9	2.5	0.2
4th child	2.7	*	0.1	*	0.3	1.9	3.9	4.7	3.6	1.0	0.1
5th child	1.0	*	*	*	*	0.6	1.5	1.7	1.2	0.5	*
6th and 7th child	0.7	*	*	*	*	0.3	0.9	1.2	1.1	0.4	0.1
8th child and over	0.4	*	*	*	*	*	0.2	0.7	0.7	0.4	0.1

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in numerator.
0.0 Quantity more than zero but less than 0.05.
1 Fertility rates computed by relating total births, regardless of age of mother, to women aged 15-44 years.
2 Birth rates computed by relating births to women aged 45-54 years to women aged 45-49 years.
3 Includes births to Aleuts and Eskimos.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 4. Total fertility rates and birth rates by age of mother: United States, 1970-99, and by age and race of mother: United States, 1980-99

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group. Population enumerated as of April 1 for 1970, 1980, and 1990, and estimated as of July 1 for all other years]

Year and race	Total fertility rate	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [1]
			Total	15-17 years	18-19 years						
All races [2]											
1999	2,075.0	0.9	49.6	28.7	80.3	111.0	117.8	89.6	38.3	7.4	0.4
1998	2,058.5	1.0	51.1	30.4	82.0	111.2	115.9	87.4	37.4	7.3	0.4
1997	2,032.5	1.1	52.3	32.1	83.6	110.4	113.8	85.3	36.1	7.1	0.4
1996	2,027.0	1.2	54.4	33.8	86.0	110.4	113.1	83.9	35.3	6.8	0.3
1995	2,019.0	1.3	56.8	36.0	89.1	109.8	112.2	82.5	34.3	6.6	0.3
1994	2,036.0	1.4	58.9	37.6	91.5	111.1	113.9	81.5	33.7	6.4	0.3
1993	2,046.0	1.4	59.6	37.8	92.1	112.6	115.5	80.8	32.9	6.1	0.3
1992	2,065.0	1.4	60.7	37.8	94.5	114.6	117.4	80.2	32.5	5.9	0.3
1991	2,073.0	1.4	62.1	38.7	94.4	115.7	118.2	79.5	32.0	5.5	0.2
1990	2,081.0	1.4	59.9	37.5	88.6	116.5	120.2	80.8	31.7	5.5	0.2
1989	2,014.0	1.4	57.3	36.4	84.2	113.8	117.6	77.4	29.9	5.2	0.2
1988	1,934.0	1.3	53.0	33.6	79.9	110.2	114.4	74.8	28.1	4.8	0.2
1987	1,872.0	1.3	50.6	31.7	78.5	107.9	111.6	72.1	26.3	4.4	0.2
1986	1,837.5	1.3	50.2	30.5	79.6	107.4	109.8	70.1	24.4	4.1	0.2
1985	1,844.0	1.2	51.0	31.0	79.6	108.3	111.0	69.1	24.0	4.0	0.2
1984 [3]	1,806.5	1.2	50.6	31.0	77.4	106.8	108.7	67.0	22.9	3.9	0.2
1983 [3]	1,799.0	1.1	51.4	31.8	77.4	107.8	108.5	64.9	22.0	3.9	0.2
1982 [3]	1,827.5	1.1	52.4	32.3	79.4	111.6	111.0	64.1	21.2	3.9	0.2
1981 [3]	1,812.0	1.1	52.2	32.0	80.0	112.2	111.5	61.4	20.0	3.8	0.2
1980 [3]	1,839.5	1.1	53.0	32.5	82.1	115.1	112.9	61.9	19.8	3.9	0.2
1979 [3]	1,808.0	1.2	52.3	32.3	81.3	112.8	111.4	60.3	19.5	3.9	0.2
1978 [3]	1,760.0	1.2	51.5	32.2	79.8	109.9	108.5	57.8	19.0	3.9	0.2
1977 [3]	1,789.5	1.2	52.8	33.9	80.9	112.9	111.0	56.4	19.2	4.2	0.2
1976 [3]	1,738.0	1.2	52.8	34.1	80.5	110.3	106.2	53.6	19.0	4.3	0.2
1975 [3]	1,774.0	1.3	55.6	36.1	85.0	113.0	108.2	52.3	19.5	4.6	0.3
1974 [3]	1,835.0	1.2	57.5	37.3	88.7	117.7	111.5	53.8	20.2	4.8	0.3
1973 [3]	1,879.0	1.2	59.3	38.5	91.2	119.7	112.2	55.6	22.1	5.4	0.3
1972 [3]	2,010.0	1.2	61.7	39.0	96.9	130.2	117.7	59.8	24.8	6.2	0.4
1971 [4]	2,266.5	1.1	64.5	38.2	105.3	150.1	134.1	67.3	28.7	7.1	0.4
1970 [4]	2,480.0	1.2	68.3	38.8	114.7	167.8	145.1	73.3	31.7	8.1	0.5
White											
1999	2,065.0	0.6	44.6	24.8	73.5	107.0	121.1	93.2	38.8	7.3	0.4
1998	2,041.0	0.6	45.4	25.9	74.6	107.2	119.1	90.5	37.8	7.2	0.4
1997	2,009.0	0.7	46.3	27.1	75.9	106.7	116.6	87.8	36.4	6.9	0.4
1996	2,005.5	0.8	48.1	28.4	78.4	107.2	116.1	86.3	35.6	6.7	0.3
1995	1,989.0	0.8	50.1	30.0	81.2	106.3	114.8	84.6	34.5	6.4	0.3
1994	1,985.0	0.8	51.1	30.7	82.1	106.2	115.5	83.2	33.7	6.2	0.3
1993	1,982.0	0.8	51.1	30.3	82.1	106.9	116.6	82.1	32.7	5.9	0.3
1992	1,993.5	0.8	51.8	30.1	83.8	108.2	118.4	81.4	32.2	5.7	0.2
1991	1,995.5	0.8	52.8	30.7	83.5	109.0	118.8	80.5	31.8	5.2	0.2
1990	2,003.0	0.7	50.8	29.5	78.0	109.8	120.7	81.7	31.5	5.2	0.2
1989	1,931.0	0.7	47.9	28.1	72.9	106.9	117.8	78.1	29.7	4.9	0.2
1988	1,856.5	0.6	44.4	26.0	69.6	103.7	114.8	75.4	27.7	4.5	0.2
1987	1,804.5	0.6	42.5	24.6	68.9	102.3	112.3	73.0	25.9	4.1	0.2
1986	1,776.0	0.6	42.3	23.8	70.1	102.7	110.8	70.9	23.9	3.8	0.2
1985	1,787.0	0.6	43.3	24.4	70.4	104.1	112.3	69.9	23.3	3.7	0.2
1984 [3]	1,748.5	0.6	42.9	24.3	68.4	102.7	109.8	67.7	22.2	3.6	0.2
1983 [3]	1,740.5	0.6	43.9	25.0	68.8	103.8	109.4	65.3	21.3	3.6	0.2
1982 [3]	1,767.0	0.6	45.0	25.5	70.8	107.7	111.9	64.0	20.4	3.6	0.2
1981 [3]	1,748.0	0.5	44.9	25.4	71.5	108.3	112.3	61.0	19.0	3.4	0.2
1980 [3]	1,773.0	0.6	45.4	25.5	73.2	111.1	113.8	61.2	18.8	3.5	0.2
Black											
1999	2,146.5	2.6	81.0	52.0	122.8	141.7	101.9	64.5	30.8	6.5	0.3
1998	2,171.0	2.9	85.4	56.8	126.9	141.9	101.8	64.7	30.5	6.7	0.3
1997	2,154.0	3.3	88.2	60.8	130.1	139.0	99.5	64.3	29.7	6.5	0.3
1996	2,144.0	3.6	91.4	64.7	132.5	136.8	98.2	63.3	29.1	6.1	0.3
1995	2,175.0	4.2	96.1	69.7	137.1	137.1	98.6	64.0	28.7	6.0	0.3
1994	2,300.0	4.6	104.5	76.3	148.3	146.0	104.0	65.8	28.9	5.9	0.3
1993	2,384.5	4.6	108.6	79.8	151.9	152.6	108.4	67.3	29.2	5.9	0.3
1992	2,442.0	4.7	112.4	81.3	157.9	158.0	111.2	67.5	28.8	5.6	0.2
1991	2,480.0	4.8	115.5	84.1	158.6	160.9	113.1	67.7	28.3	5.5	0.2
1990	2,480.0	4.9	112.8	82.3	152.9	160.2	115.5	68.7	28.1	5.5	0.3
1989	2,432.5	5.1	111.5	81.9	151.9	156.8	114.4	66.3	26.7	5.4	0.3
1988	2,298.0	4.9	102.7	75.7	142.7	149.7	108.2	63.1	25.6	5.1	0.3
1987	2,198.0	4.8	97.6	72.1	135.8	142.7	104.3	60.6	24.6	4.8	0.2
1986	2,135.5	4.7	95.8	69.3	135.1	137.3	101.1	59.3	23.8	4.8	0.3
1985	2,109.0	4.5	95.4	69.3	132.4	135.0	100.2	57.9	23.9	4.6	0.3
1984 [3]	2,070.5	4.4	94.1	69.2	128.1	132.2	98.4	56.7	23.3	4.8	0.2
1983 [3]	2,066.0	4.1	93.9	69.6	127.1	131.9	98.4	56.2	23.3	5.1	0.3
1982 [3]	2,106.5	4.0	94.3	69.7	128.9	135.4	101.3	57.5	23.3	5.1	0.4
1981 [3]	2,117.5	4.0	94.5	69.3	131.0	136.5	102.3	57.4	23.1	5.4	0.3
1980 [3]	2,176.5	4.3	97.8	72.5	135.1	140.0	103.9	59.9	23.5	5.6	0.3

See footnotes at end of table.

Table 4. Total fertility rates and birth rates by age of mother: United States, 1970-99, and by age and race of mother: United States, 1980-99 --Con.

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group. Population enumerated as of April 1 for 1970, 1980, and 1990, and estimated as of July 1 for all other years]

Year and race	Total fertility rate	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [1]
			Total	15-17 years	18-19 years						
American Indian [5]											
1999	2,056.5	1.6	67.8	41.4	110.6	137.1	102.4	64.3	30.7	7.1	0.3
1998	2,090.5	1.6	72.1	44.4	118.4	139.3	102.2	66.3	30.2	6.4	*
1997	2,047.5	1.7	71.8	45.3	117.6	134.9	100.8	64.2	29.3	6.4	0.4
1996	2,030.0	1.7	73.9	46.4	122.3	133.9	98.5	63.2	28.5	6.3	*
1995	2,033.5	1.8	78.0	47.8	130.7	132.5	98.4	62.2	27.7	6.1	*
1994	2,080.0	1.9	80.8	51.3	130.3	134.2	104.1	61.2	27.5	5.9	0.4
1993	2,141.0	1.4	83.1	53.7	130.7	139.8	107.6	62.8	27.6	5.9	*
1992	2,190.0	1.6	84.4	53.8	132.6	145.5	109.4	63.0	28.0	6.1	*
1991	2,169.0	1.6	85.0	52.7	134.3	144.9	106.9	61.9	27.2	5.9	0.4
1990	2,183.0	1.6	81.1	48.5	129.3	148.7	110.3	61.5	27.5	5.9	*
1989	2,247.0	1.5	82.7	51.6	128.9	152.4	114.2	64.8	27.4	6.4	*
1988	2,153.5	1.7	77.5	49.7	121.1	145.2	110.9	64.5	25.6	5.3	*
1987	2,099.0	1.7	77.2	48.8	122.2	140.0	107.9	63.0	24.4	5.6	*
1986	2,082.0	1.8	78.1	48.7	125.3	138.8	107.9	60.7	23.8	5.3	*
1985	2,128.0	1.7	79.2	47.7	124.1	139.1	109.6	62.6	27.4	6.0	*
1984 [3]	2,136.0	1.7	81.5	50.7	124.7	142.4	109.2	60.5	26.3	5.6	*
1983 [3]	2,180.5	1.9	84.2	55.2	121.4	145.5	113.7	58.9	25.5	6.4	*
1982 [3]	2,213.0	1.4	83.5	52.6	127.6	148.1	115.8	60.9	26.9	6.0	*
1981 [3]	2,090.0	2.1	78.4	49.7	121.5	141.2	105.6	58.9	25.2	6.6	*
1980 [3]	2,162.5	1.9	82.2	51.5	129.5	143.7	106.6	61.8	28.1	8.2	*
Asian or Pacific Islander											
1999	1,927.0	0.3	22.3	12.3	38.0	70.0	116.4	109.3	54.6	11.6	0.9
1998	1,867.5	0.4	23.1	13.8	38.3	68.8	110.4	105.1	52.8	12.0	0.9
1997	1,925.5	0.5	23.7	14.3	39.3	70.5	113.2	110.3	54.1	11.9	0.9
1996	1,907.5	0.6	24.6	14.9	40.4	70.7	111.2	109.2	52.2	12.2	0.8
1995	1,924.0	0.7	26.1	15.4	43.4	72.4	113.4	106.9	52.4	12.1	0.8
1994	1,943.0	0.7	27.1	16.1	44.1	73.1	118.6	105.2	51.3	11.6	1.0
1993	1,935.5	0.6	27.0	16.0	43.3	73.3	119.9	103.9	50.2	11.3	0.9
1992	1,942.0	0.7	26.6	15.2	43.1	74.6	121.0	103.0	50.6	11.0	0.9
1991	1,956.0	0.8	27.4	16.1	43.1	75.2	123.2	103.3	49.0	11.2	1.1
1990	2,002.5	0.7	26.4	16.0	40.2	79.2	126.3	106.5	49.6	10.7	1.1
1989	1,947.5	0.6	25.6	15.0	40.4	78.8	124.0	102.3	47.0	10.2	1.0
1988	1,983.5	0.6	24.2	13.6	39.6	80.7	128.0	104.4	47.5	10.3	1.0
1987	1,886.0	0.6	22.4	12.6	37.0	79.7	122.7	97.0	44.2	9.5	1.1
1986	1,836.0	0.5	22.8	12.1	38.8	79.2	119.9	92.6	41.9	9.3	1.0
1985	1,885.0	0.4	23.8	12.5	40.8	83.6	123.0	93.6	42.7	8.7	1.2
1984 [3]	1,892.0	0.5	24.2	12.6	40.7	86.7	124.3	92.4	40.6	8.7	1.0
1983 [3]	1,943.5	0.5	26.1	12.9	44.5	94.0	126.2	93.3	39.4	8.2	1.0
1982 [3]	2,015.5	0.4	29.4	14.0	50.8	98.9	130.9	94.4	39.2	8.8	1.1
1981 [3]	1,976.0	0.3	28.5	13.4	49.5	96.4	129.1	93.4	38.0	8.6	0.9
1980 [3]	1,953.5	0.3	26.2	12.0	46.2	93.3	127.4	96.0	38.3	8.5	0.7

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in numerator.
1 Beginning 1997, rates computed by relating births to women aged 45-54 years to women aged 45-49 years.
2 For 1970-91 includes births to races not shown separately.
3 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.
4 Based on a 50-percent sample of births.
5 Includes births to Aleuts and Eskimos.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 5. Fertility rates and birth rates by live-birth order and race of mother: United States, 1980-99

[Rates are live births per 1,000 women aged 15-44 years. Population enumerated as of April 1 for 1980 and 1990, and estimated as of July 1 for all other years. Figures for live-birth order not stated are distributed]

Year and race of mother	Fertility rate	Live-birth order						
		1	2	3	4	5	6 and 7	8 and over
All races [1]								
1999	65.9	26.6	21.5	10.9	4.2	1.5	0.9	0.3
1998	65.6	26.4	21.4	10.8	4.2	1.5	0.9	0.3
1997	65.0	26.5	21.1	10.6	4.1	1.5	0.9	0.3
1996	65.3	26.8	21.1	10.5	4.1	1.5	0.9	0.3
1995	65.6	27.3	21.1	10.5	4.0	1.5	0.9	0.3
1994	66.7	27.5	21.5	10.7	4.2	1.6	1.0	0.3
1993	67.6	27.5	21.9	11.0	4.3	1.6	1.0	0.3
1992	68.9	27.8	22.3	11.3	4.4	1.7	1.0	0.3
1991	69.6	28.3	22.4	11.4	4.5	1.7	1.0	0.3
1990	70.9	29.0	22.8	11.7	4.5	1.7	1.0	0.3
1989	69.2	28.4	22.4	11.3	4.3	1.6	0.9	0.3
1988	67.3	27.6	22.0	10.9	4.1	1.5	0.9	0.3
1987	65.8	27.2	21.6	10.5	3.9	1.4	0.8	0.3
1986	65.4	27.2	21.6	10.3	3.8	1.4	0.8	0.3
1985	66.3	27.6	22.0	10.4	3.8	1.4	0.8	0.3
1984 [2]	65.5	27.4	21.7	10.1	3.7	1.4	0.9	0.3
1983 [2]	65.7	27.8	21.5	10.1	3.7	1.4	0.9	0.3
1982 [2]	67.3	28.6	22.0	10.2	3.8	1.4	0.9	0.3
1981 [2]	67.3	29.0	21.6	10.1	3.8	1.5	0.9	0.4
1980 [2]	68.4	29.5	21.8	10.3	3.9	1.5	1.0	0.4
White								
1999	65.1	26.4	21.6	10.8	4.0	1.4	0.8	0.2
1998	64.6	26.1	21.5	10.7	3.9	1.3	0.8	0.2
1997	63.9	26.2	21.2	10.4	3.8	1.3	0.8	0.2
1996	64.3	26.6	21.2	10.4	3.8	1.3	0.8	0.2
1995	64.4	26.9	21.1	10.3	3.8	1.3	0.7	0.2
1994	64.9	27.0	21.4	10.4	3.8	1.3	0.8	0.2
1993	65.4	27.0	21.7	10.5	3.9	1.4	0.8	0.2
1992	66.5	27.3	22.0	10.8	4.0	1.4	0.8	0.2
1991	67.0	27.8	22.0	10.8	4.0	1.4	0.8	0.2
1990	68.3	28.4	22.4	11.1	4.0	1.4	0.8	0.2
1989	66.4	27.6	21.9	10.7	3.8	1.3	0.7	0.2
1988	64.5	26.8	21.6	10.4	3.6	1.2	0.7	0.2
1987	63.3	26.5	21.3	10.0	3.5	1.2	0.7	0.2
1986	63.1	26.6	21.3	9.8	3.4	1.2	0.7	0.2
1985	64.1	27.0	21.8	9.9	3.4	1.2	0.7	0.2
1984 [2]	63.2	26.8	21.4	9.6	3.3	1.2	0.7	0.2
1983 [2]	63.4	27.2	21.2	9.5	3.3	1.2	0.7	0.2
1982 [2]	64.8	28.0	21.6	9.6	3.4	1.2	0.7	0.3
1981 [2]	64.8	28.4	21.1	9.5	3.4	1.2	0.8	0.3
1980 [2]	65.6	28.8	21.3	9.6	3.4	1.3	0.8	0.3
Black								
1999	70.1	26.5	20.9	12.4	5.7	2.5	1.7	0.6
1998	71.0	27.0	21.1	12.3	5.7	2.6	1.7	0.6
1997	70.7	27.3	20.7	12.1	5.7	2.5	1.8	0.6
1996	70.7	27.6	20.5	12.0	5.6	2.6	1.8	0.6
1995	72.3	28.7	20.7	12.0	5.7	2.6	1.8	0.6
1994	76.9	29.8	22.2	13.1	6.3	2.9	2.0	0.6
1993	80.5	30.2	23.4	14.1	6.9	3.1	2.2	0.7
1992	83.2	30.6	24.3	15.0	7.2	3.3	2.2	0.6
1991	85.2	31.5	25.0	15.4	7.4	3.3	2.1	0.6
1990	86.8	32.4	25.6	15.6	7.4	3.2	2.0	0.6
1989	86.2	32.9	25.4	15.3	7.1	3.0	1.9	0.6
1988	82.6	31.8	24.6	14.4	6.6	2.8	1.8	0.5
1987	80.1	31.2	23.8	13.9	6.3	2.7	1.7	0.5
1986	78.9	31.0	23.4	13.5	6.1	2.6	1.7	0.5
1985	78.8	31.0	23.4	13.4	6.1	2.6	1.7	0.5
1984 [2]	78.1	30.9	23.0	13.2	6.0	2.6	1.7	0.6
1983 [2]	78.7	31.1	23.1	13.2	6.1	2.7	1.8	0.6
1982 [2]	80.9	31.7	23.9	13.8	6.3	2.7	1.8	0.7
1981 [2]	82.0	32.3	24.2	13.7	6.3	2.8	1.9	0.8
1980 [2]	84.9	33.7	24.7	14.0	6.5	2.9	2.1	0.9

[1] Includes races other than white and black.
[2] Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 6. Live births, birth rates, and fertility rates by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1989-99

[Birth rates are live births per 1,000 population in specified group. Fertility rates are live births per 1,000 women aged 15-44 years in specified group]

Measure and year	All origins [1]	Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total [2]	White	Black
Number										
1999	3,959,417	764,339	540,674	57,138	13,088	103,307	50,132	3,147,580	2,346,450	588,981
1998	3,941,553	734,661	516,011	57,349	13,226	98,226	49,849	3,158,975	2,361,462	593,127
1997	3,880,894	709,767	499,024	55,450	12,887	97,405	45,001	3,115,174	2,333,363	581,431
1996	3,891,494	701,339	489,666	54,863	12,613	97,888	46,309	3,133,484	2,358,989	578,099
1995	3,899,589	679,768	469,615	54,824	12,473	94,996	47,860	3,160,495	2,382,638	587,781
1994	3,952,767	665,026	454,536	57,240	11,889	93,485	47,876	3,245,115	2,438,855	619,198
1993	4,000,240	654,418	443,733	58,102	11,916	92,371	48,296	3,295,345	2,472,031	641,273
1992 [3]	4,049,024	643,271	432,047	59,569	11,472	89,031	51,152	3,365,862	2,527,207	657,450
1991 [3]	4,094,566	623,085	411,233	59,833	11,058	86,908	54,053	3,434,464	2,589,878	666,758
1990 [4]	4,092,994	595,073	385,640	58,807	11,311	83,008	56,307	3,457,417	2,626,500	661,701
1989 [5]	3,903,012	532,249	327,233	56,229	10,842	72,443	65,502	3,297,493	2,526,367	611,269
Birth rate										
1999	14.5	24.4	26.4	19.4	9.7	[6]23.4		13.2	12.2	17.9
1998	14.6	24.3	26.4	19.0	10.0	[6]23.2		13.4	12.3	18.2
1997	14.5	24.2	26.8	18.1	10.1	[6]22.4		13.3	12.2	18.1
1996	14.7	24.8	27.4	17.9	10.7	[6]23.4		13.5	12.4	18.3
1995	14.8	25.2	26.9	19.7	11.0	[6]25.3		13.7	12.6	18.8
1994	15.2	25.5	27.0	21.4	10.8	[6]25.7		14.0	12.8	20.0
1993	15.5	26.0	27.4	21.9	10.5	[6]26.9		14.4	13.1	21.1
1992 [7]	15.9	26.5	27.8	23.2	10.1	[6]27.9		14.8	13.5	21.9
1991 [7]	16.3	26.7	29.2	21.0	10.1	[6]26.5		15.2	13.9	22.5
1990 [4]	16.7	26.7	28.7	21.6	10.9	[6]27.5		15.7	14.4	23.0
1989 [5]	16.3	26.2	25.7	23.7	10.0	[6]28.3		15.4	14.2	22.8
Fertility rate										
1999	65.9	102.0	111.6	77.7	51.2	[6]92.6		60.7	57.8	72.2
1998	65.6	101.1	112.1	75.5	50.1	[6]90.2		60.7	57.7	73.0
1997	65.0	102.8	116.6	71.7	57.4	[6]87.6		60.1	57.0	72.4
1996	65.3	104.9	119.3	71.3	58.9	[6]90.2		60.3	57.3	72.5
1995	65.6	105.0	117.0	75.7	55.1	[6]94.5		60.8	57.6	74.5
1994	66.7	105.6	115.4	81.9	55.9	[6]97.7		62.0	58.3	79.0
1993	67.6	106.9	114.8	82.5	55.5	[6]105.0		63.1	59.0	82.7
1992 [7]	68.9	108.6	116.0	89.9	50.3	[6]107.0		64.4	60.2	85.5
1991 [7]	69.6	108.1	121.6	80.9	49.1	[6]99.3		65.4	61.0	87.6
1990 [4]	71.0	107.7	118.9	82.9	52.6	[6]102.7		67.1	62.8	89.0
1989 [5]	69.2	104.9	106.6	86.6	49.8	[6]95.8		65.7	60.5	84.8

1 Includes origin not stated.
2 Includes races other than white and black.
3 Excludes data for New Hampshire, which did not report Hispanic origin.
4 Excludes data for New Hampshire and Oklahoma, which did not report Hispanic origin.
5 Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.
6 Includes Central and South American and other and unknown Hispanic.
7 Rates are estimated for the United States based on birth data for 49 States and the District of Columbia. Births for New Hampshire that did not report Hispanic origin, are included in the rates for non-Hispanic women; see Technical notes.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

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Table 7. Live births by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1999

[Live-birth order refers to number of children born alive to mother. Includes births with stated origin of mother only]

Live-birth order and origin of mother	All ages	Age of mother												
		Under 15 years	15-19 years						20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years
			Total	15 years	16 years	17 years	18 years	19 years							
Hispanic															
Total	764,339	2,725	124,677	7,288	15,828	25,113	33,806	42,642	231,475	203,985	131,369	58,146	11,440	513	9
1st child	283,116	2,638	94,218	6,880	14,220	20,565	24,854	27,699	98,947	53,434	23,997	8,375	1,433	73	1
2d child	232,784	52	24,478	320	1,364	3,906	7,346	11,542	82,799	70,561	38,531	14,102	2,183	76	2
3d child	141,471	2	4,282	18	85	389	1,143	2,647	35,149	48,762	35,847	14,939	2,403	84	3
4th child	61,448	-	502	2	3	31	118	348	10,098	20,172	18,759	9,840	2,007	69	1
5th child	23,891	-	69	-	1	2	14	52	2,404	6,776	7,957	5,305	1,316	63	1
6th child	9,621	-	4	2	-	-	1	1	465	2,222	3,313	2,713	850	54	-
7th child	4,053	-	1	-	-	-	-	1	125	690	1,396	1,289	522	30	-
8th child and over	3,491	-	-	-	-	-	-	-	35	401	992	1,320	681	61	1
Not stated	4,464	33	1,123	66	155	220	330	352	1,453	967	577	263	45	3	-
Mexican	540,674	2,031	92,204	5,450	11,809	18,716	24,932	31,297	169,899	146,115	86,834	36,182	7,089	317	3
1st child	195,036	1,961	69,110	5,110	10,564	15,253	18,055	20,128	70,869	35,060	13,028	4,253	700	35	-
2d child	161,317	41	18,488	263	1,044	2,961	5,614	8,606	61,576	50,033	22,959	7,143	1,046	31	-
3d child	102,687	1	3,255	15	63	297	885	1,995	26,414	36,945	25,331	9,351	1,349	40	1
4th child	46,439	-	372	2	3	21	93	253	7,605	15,586	14,398	7,056	1,374	48	-
5th child	18,457	-	55	-	1	2	13	39	1,844	5,246	6,262	4,033	972	44	1
6th child	7,457	-	3	2	-	-	-	1	353	1,705	2,592	2,113	652	39	-
7th child	3,151	-	1	-	-	-	-	1	91	521	1,094	1,020	401	23	-
8th child and over	2,760	-	-	-	-	-	-	-	30	302	768	1,035	570	54	1
Not stated	3,370	28	920	58	134	182	272	274	1,097	717	402	178	25	3	-
Puerto Rican	57,138	242	11,836	677	1,508	2,440	3,226	3,985	16,289	13,616	8,607	3,765	755	27	1
1st child	22,359	238	8,857	655	1,367	1,974	2,383	2,478	6,903	3,603	1,923	679	146	10	-
2d child	17,783	2	2,362	17	118	394	678	1,155	6,640	4,560	2,882	1,167	165	5	-
3d child	9,722	-	418	-	10	43	115	250	3,164	3,047	1,939	958	187	8	1
4th child	4,023	-	66	-	-	4	13	49	1,054	1,389	972	432	109	1	-
5th child	1,531	-	5	-	-	-	1	4	265	541	422	246	51	1	-
6th child	644	-	-	-	-	-	-	-	56	222	211	111	43	1	-
7th child	288	-	-	-	-	-	-	-	12	81	102	68	24	1	-
8th child and over	243	-	-	-	-	-	-	-	1	51	83	83	25	-	-
Not stated	545	2	128	5	13	25	36	49	194	122	73	21	5	-	-
Cuban	13,088	25	980	56	119	179	259	367	2,420	3,659	3,629	2,027	334	14	-
1st child	5,723	24	805	53	114	153	211	274	1,423	1,726	1,181	475	85	4	-
2d child	4,828	-	149	3	4	26	40	76	768	1,367	1,587	837	117	3	-
3d child	1,830	-	24	-	1	-	8	15	191	427	641	464	80	3	-
4th child	468	-	2	-	-	-	-	2	28	95	157	152	31	3	-
5th child	138	-	-	-	-	-	-	-	5	29	43	48	12	1	-
6th child	47	-	-	-	-	-	-	-	2	7	11	26	1	-	-
7th child	18	-	-	-	-	-	-	-	1	2	4	8	3	-	-
8th child and over	18	-	-	-	-	-	-	-	-	1	3	11	3	-	-
Not stated	18	1	-	-	-	-	-	-	2	5	2	6	2	-	-
Central and South American	103,307	182	10,112	460	1,115	1,862	2,792	3,883	25,850	28,472	23,759	12,259	2,540	131	2
1st child	39,477	176	8,121	439	1,018	1,600	2,247	2,817	13,314	9,485	5,789	2,204	367	20	1
2d child	33,300	4	1,666	19	85	234	475	853	8,517	10,334	8,291	3,799	658	30	1
3d child	18,681	1	266	1	8	22	52	183	3,033	5,684	5,848	3,203	617	29	-
4th child	7,194	-	22	-	-	2	5	15	722	2,017	2,367	1,645	406	15	-
5th child	2,543	-	5	-	-	-	-	5	129	604	848	728	215	14	-
6th child	1,028	-	1	-	-	-	1	-	25	181	335	351	124	11	-
7th child	418	-	-	-	-	-	-	-	8	53	126	147	79	5	-
8th child and over	328	-	-	-	-	-	-	-	3	29	91	135	63	7	-
Not stated	338	1	31	1	4	4	12	10	99	85	64	47	11	-	-
Other and unknown Hispanic	50,132	245	9,545	645	1,277	1,916	2,597	3,110	15,017	12,123	8,540	3,913	722	24	3
1st child	20,521	239	7,325	623	1,157	1,585	1,958	2,002	6,418	3,560	2,076	764	135	4	-
2d child	15,556	5	1,813	18	113	291	539	852	5,298	4,267	2,812	1,156	197	7	1
3d child	8,551	-	319	2	3	27	83	204	2,347	2,659	2,088	963	170	4	1
4th child	3,324	-	40	-	-	4	7	29	689	1,085	865	555	87	2	1
5th child	1,222	-	4	-	-	-	-	4	161	356	382	250	66	3	-
6th child	445	-	-	-	-	-	-	-	29	107	164	112	30	3	-
7th child	178	-	-	-	-	-	-	-	13	33	70	46	15	1	-
8th child and over	142	-	-	-	-	-	-	-	1	18	47	56	20	-	-
Not stated	193	1	44	2	4	9	10	19	61	38	36	11	2	-	-

See footnotes at end of table.

Table 7. Live births by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1999 –Con.

[Live-birth order refers to number of children born alive to mother. Includes births with stated origin of mother only]

Live-birth order and origin of mother	All ages	Age of mother												
		Under 15 years	15-19 years						20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years
			Total	15 years	16 years	17 years	18 years	19 years							
Non-Hispanic															
Total [1]	3,147,580	6,240	346,698	15,409	35,189	63,243	98,809	134,048	740,611	861,802	748,604	369,586	70,317	3,569	153
1st child	1,287,491	6,102	273,298	14,753	32,379	54,652	77,857	93,657	345,192	334,448	225,757	85,893	15,856	894	51
2d child	1,037,940	106	60,245	583	2,516	7,504	17,539	32,103	252,823	299,186	278,936	125,128	20,612	868	36
3d child	504,463	5	10,272	15	158	750	2,684	6,665	101,006	144,407	148,395	85,112	14,606	630	30
4th child	186,191	1	1,344	1	11	57	301	974	29,196	52,341	55,968	38,977	7,968	380	16
5th child	66,336	-	165	-	-	4	37	124	7,529	18,088	20,076	15,935	4,326	216	1
6th child	27,365	-	25	-	2	3	4	16	1,896	6,608	8,887	7,494	2,308	144	3
7th child	12,596	-	5	-	-	-	2	3	416	2,433	4,141	4,041	1,455	97	8
8th child and over	14,012	-	3	-	-	-	1	2	154	1,451	3,769	5,459	2,851	320	5
Not stated	11,186	26	1,341	57	123	273	384	504	2,399	2,840	2,675	1,547	335	20	3
White	2,346,450	2,048	212,923	6,963	18,886	37,671	62,282	87,121	514,386	663,569	600,830	294,590	55,175	2,808	121
1st child	971,745	2,015	174,664	6,766	17,903	33,917	51,692	64,386	256,066	270,261	184,810	70,162	12,966	762	39
2d child	794,532	25	32,729	160	858	3,347	9,271	19,093	177,643	236,926	229,123	100,789	16,564	701	32
3d child	372,667	-	4,215	3	45	231	981	2,955	61,617	106,540	119,601	68,825	11,351	491	27
4th child	127,988	-	400	-	1	12	77	310	14,162	33,956	42,353	30,650	6,158	295	14
5th child	40,983	-	49	-	-	1	10	38	2,651	9,702	13,552	11,705	3,172	151	1
6th child	15,669	-	7	-	1	1	-	5	521	2,860	5,338	5,185	1,653	103	2
7th child	6,923	-	2	-	-	-	1	1	88	886	2,244	2,641	993	65	4
8th child and over	7,816	-	1	-	-	-	-	1	56	378	1,674	3,422	2,058	227	-
Not stated	8,127	8	856	34	78	162	250	332	1,582	2,060	2,135	1,211	260	13	2
Black	588,981	3,890	118,285	7,698	14,573	22,580	32,155	41,279	188,247	134,784	88,403	45,746	9,223	392	11
1st child	221,337	3,786	86,434	7,282	12,894	18,195	22,799	25,264	69,070	33,356	19,041	8,089	1,497	58	6
2d child	174,340	81	24,843	383	1,528	3,773	7,453	11,706	63,831	42,819	27,474	13,044	2,164	82	2
3d child	103,413	4	5,579	9	102	473	1,557	3,438	35,068	30,190	19,956	10,534	2,008	73	1
4th child	47,666	1	870	1	10	37	198	624	13,581	15,308	10,446	6,145	1,266	49	-
5th child	21,029	-	108	-	-	2	25	81	4,425	7,127	5,135	3,344	844	46	-
6th child	9,630	-	17	-	1	2	4	10	1,236	3,222	2,869	1,773	489	24	-
7th child	4,595	-	3	-	-	-	1	2	295	1,326	1,515	1,083	354	18	1
8th child and over	4,717	-	2	-	-	-	1	1	84	898	1,609	1,531	553	40	-
Not stated	2,254	18	429	23	38	98	117	153	657	538	358	203	48	2	1

- Quantity zero.
1 Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 8. Fertility rates and birth rates by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1999

[Rates are live births per 1,000 women in specified age and racial group. Live-birth order refers to number of children born alive to mother. Figures for live-birth order not stated are distributed]

Live-birth order and origin of mother	15-44 years [1]	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [2]
			Total	15-17 years	18-19 years						
Hispanic											
Total	102.0	2.0	93.4	61.3	139.4	178.7	163.1	102.2	46.3	10.7	0.6
1st child	38.0	2.0	71.2	53.4	96.7	76.9	42.9	18.8	6.7	1.3	0.1
2d child	31.3	0.0	18.5	7.2	34.8	64.3	56.7	30.1	11.3	2.0	0.1
3d child	19.0	*	3.2	0.6	7.0	27.3	39.2	28.0	12.0	2.3	0.1
4th child	8.3	*	0.4	0.0	0.9	7.8	16.2	14.7	7.9	1.9	0.1
5th child	3.2	*	0.1	*	0.1	1.9	5.4	6.2	4.2	1.2	0.1
6th and 7th child	1.8	*	*	*	*	0.5	2.3	3.7	3.2	1.3	0.1
8th child and over	0.5	*	*	*	*	0.0	0.3	0.8	1.1	0.6	0.1
Mexican	111.6	2.3	101.5	65.4	156.8	194.2	169.8	107.9	49.1	10.8	0.7
1st child	40.5	2.2	76.8	56.8	107.5	81.5	40.9	16.3	5.8	1.1	0.1
2d child	33.5	0.0	20.6	7.8	40.0	70.8	58.4	28.7	9.7	1.6	0.1
3d child	21.3	*	3.6	0.7	8.1	30.4	43.1	31.6	12.8	2.1	0.1
4th child	9.6	*	0.4	0.0	1.0	8.7	18.2	18.0	9.6	2.1	0.1
5th child	3.8	*	0.1	*	0.1	2.1	6.1	7.8	5.5	1.5	0.1
6th and 7th child	2.2	*	*	*	*	0.5	2.6	4.6	4.3	1.6	0.1
8th child and over	0.6	*	*	*	*	0.0	0.4	1.0	1.4	0.9	0.1
Puerto Rican	77.7	1.7	79.7	53.2	117.1	166.0	127.9	64.3	28.4	7.3	0.3
1st child	30.7	1.7	60.3	46.4	79.9	63.3	34.1	14.5	5.1	1.4	*
2d child	24.4	*	16.1	6.1	30.1	60.9	43.2	21.7	8.8	1.6	*
3d child	13.3	*	2.8	0.6	6.0	29.0	28.9	14.6	7.3	1.8	*
4th child	5.5	*	0.5	*	1.0	9.7	13.2	7.3	3.3	1.1	*
5th child	2.1	*	*	*	*	2.4	5.1	3.2	1.9	0.5	*
6th and 7th child	1.3	*	*	*	*	0.6	2.9	2.4	1.4	0.6	*
8th child and over	0.3	*	*	*	*	*	0.5	0.6	0.6	0.2	*
Cuban	51.2	0.7	27.1	15.7	46.2	71.8	92.8	72.9	39.6	7.4	*
1st child	22.4	0.7	22.3	14.2	35.8	42.2	43.8	23.7	9.3	1.9	*
2d child	18.9	*	4.1	1.5	8.6	22.8	34.7	31.9	16.4	2.6	*
3d child	7.2	*	0.7	*	1.7	5.7	10.9	12.9	9.1	1.8	*
4th child	1.8	*	*	*	*	0.8	2.4	3.2	3.0	0.7	*
5th child	0.5	*	*	*	*	*	0.7	0.9	0.9	*	*
6th and 7th child	0.3	*	*	*	*	*	*	*	0.7	*	*
8th child and over	*	*	*	*	*	*	*	*	*	*	*
Other Hispanic [3]	92.6	1.6	81.3	57.1	108.2	148.0	166.2	108.8	48.3	12.4	0.7
1st child	36.3	1.6	64.1	50.6	79.2	71.8	53.6	26.6	8.9	1.9	0.1
2d child	29.6	*	14.4	6.0	23.8	50.2	60.0	37.5	14.9	3.3	0.2
3d child	16.5	*	2.4	0.5	4.6	19.6	34.3	26.8	12.5	3.0	0.2
4th child	6.4	*	0.3	*	0.5	5.1	12.7	10.9	6.6	1.9	*
5th child	2.3	*	*	*	*	1.1	3.9	4.2	2.9	1.1	*
6th and 7th child	1.3	*	*	*	*	0.3	1.5	2.3	2.0	0.9	0.1
8th child and over	0.3	*	*	*	*	*	0.2	0.5	0.6	0.3	*

See footnotes at end of table.

Table 8. Fertility rates and birth rates by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1999 –Con.

[Rates are live births per 1,000 women in specified age and racial group. Live-birth order refers to number of children born alive to mother. Figures for live-birth order not stated are distributed]

Live-birth order and origin of mother	15-44 years [1]	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [2]
			Total	15-17 years	18-19 years						
Non-Hispanic [4]											
Total [5]	60.7	0.8	42.5	23.5	70.6	99.4	110.6	87.8	37.3	7.1	0.4
1st child	24.9	0.8	33.7	21.1	52.2	46.5	43.1	26.6	8.7	1.6	0.1
2d child	20.1	0.0	7.4	2.2	15.1	34.1	38.5	32.8	12.7	2.1	0.1
3d child	9.8	*	1.3	0.2	2.8	13.6	18.6	17.4	8.6	1.5	0.1
4th child	3.6	*	0.2	0.0	0.4	3.9	6.7	6.6	4.0	0.8	0.0
5th child	1.3	*	0.0	*	0.0	1.0	2.3	2.4	1.6	0.4	0.0
6th and 7th child	0.8	*	0.0	*	0.0	0.3	1.2	1.5	1.2	0.4	0.0
8th child and over	0.3	*	*	*	*	0.0	0.2	0.4	0.6	0.3	0.0
White	57.8	0.3	34.0	17.1	58.9	89.9	111.0	90.3	37.3	6.8	0.4
1st child	24.0	0.3	28.0	15.8	46.0	44.9	45.3	27.9	8.9	1.6	0.1
2d child	19.6	0.0	5.3	1.2	11.2	31.2	39.7	34.6	12.8	2.1	0.1
3d child	9.2	*	0.7	0.1	1.6	10.8	17.9	18.0	8.7	1.4	0.1
4th child	3.2	*	0.1	*	0.2	2.5	5.7	6.4	3.9	0.8	0.0
5th child	1.0	*	0.0	*	0.0	0.5	1.6	2.0	1.5	0.4	0.0
6th and 7th child	0.6	*	*	*	*	0.1	0.6	1.2	1.0	0.3	0.0
8th child and over	0.2	*	*	*	*	0.0	0.1	0.3	0.4	0.3	0.0
Black	72.2	2.7	83.7	53.7	126.8	146.3	104.9	66.3	31.5	6.7	0.4
1st child	27.2	2.7	61.4	46.1	83.3	53.9	26.1	14.4	5.6	1.1	0.1
2d child	21.4	0.1	17.6	6.8	33.2	49.8	33.4	20.7	9.0	1.6	0.1
3d child	12.7	*	4.0	0.7	8.6	27.3	23.6	15.0	7.3	1.5	0.1
4th child	5.9	*	0.6	0.1	1.4	10.6	11.9	7.9	4.3	0.9	0.0
5th child	2.6	*	0.1	*	0.2	3.5	5.6	3.9	2.3	0.6	0.0
6th and 7th child	1.8	*	0.0	*	*	1.2	3.6	3.3	2.0	0.6	0.0
8th child and over	0.6	*	*	*	*	0.1	0.7	1.2	1.1	0.4	0.0

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
0.0 Quantity more than zero but less than 0.05.
1 Fertility rates computed by relating total births, regardless of age of mother, to women aged 15-44 years.
2 Birth rates computed by relating births to women aged 45-54 years to women aged 45-49 years.
3 Includes Central and South American and other and unknown Hispanic.
4 Includes origin not stated.
5 Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin.

Table 9. Total fertility rates, fertility rates, and birth rates by age and Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1989-99

[Fertility rates are live births per 1,000 women aged 15-44 years in specified racial group and birth rates are live births per 1,000 women in specified age and racial group. Population enumerated as of April 1 for 1990, and estimated as of July 1 for all other years. Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5]

Year and origin/race of mother	Total fertility rate	Fertility rate [1]	Age of mother									
			10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [2]
				Total	15-17 years	18-19 years						
All origins												
1999	2,075.0	65.9	0.9	49.6	28.7	80.3	111.0	117.8	89.6	38.3	7.4	0.4
1998	2,058.5	65.6	1.0	51.1	30.4	82.0	111.2	115.9	87.4	37.4	7.3	0.4
1997	2,032.5	65.0	1.1	52.3	32.1	83.6	110.4	113.8	85.3	36.1	7.1	0.4
1996	2,027.0	65.3	1.2	54.4	33.8	86.0	110.4	113.1	83.9	35.3	6.8	0.3
1995	2,019.0	65.6	1.3	56.8	36.0	89.1	109.8	112.2	82.5	34.3	6.6	0.3
1994	2,036.0	66.7	1.4	58.9	37.6	91.5	111.1	113.9	81.5	33.7	6.4	0.3
1993	2,046.0	67.6	1.4	59.6	37.8	92.1	112.6	115.5	80.8	32.9	6.1	0.3
1992	2,065.0	68.9	1.4	60.7	37.8	94.5	114.6	117.4	80.2	32.5	5.9	0.3
1991	2,073.0	69.6	1.4	62.1	38.7	94.4	115.7	118.2	79.5	32.0	5.5	0.2
1990	2,081.0	70.9	1.4	59.9	37.5	88.6	116.5	120.2	80.8	31.7	5.5	0.2
1989	2,014.0	69.2	1.4	57.3	36.4	84.2	113.8	117.6	77.4	29.9	5.2	0.2
Hispanic												
Total												
1999	2,985.0	102.0	2.0	93.4	61.3	139.4	178.7	163.1	102.2	46.3	10.7	0.6
1998	2,947.5	101.1	2.1	93.6	62.3	140.1	178.4	160.2	98.9	44.9	10.8	0.6
1997	2,999.5	102.8	2.3	97.4	66.3	144.3	184.2	161.7	97.9	45.0	10.8	0.6
1996	3,047.5	104.9	2.6	101.8	69.0	151.1	189.5	161.0	98.1	45.1	10.8	0.6
1995	3,019.5	105.0	2.7	106.7	72.9	157.9	188.5	153.8	95.9	44.9	10.8	0.6
1994	3,014.0	105.6	2.7	107.7	74.0	158.0	188.2	153.2	95.4	44.3	10.7	0.6
1993	3,020.5	106.9	2.7	106.8	71.7	159.1	188.3	154.0	96.4	44.7	10.6	0.6
1992 [3]	3,043.0	108.6	2.6	107.1	71.4	159.7	190.6	154.4	96.8	45.6	10.9	0.6
1991 [3]	3,002.5	108.1	2.4	106.7	70.6	158.5	186.3	152.8	96.1	44.9	10.7	0.6
1990 [4]	2,959.5	107.7	2.4	100.3	65.9	147.7	181.0	153.0	98.3	45.3	10.9	0.7
1989 [5]	2,903.5	104.9	2.3	100.8	---	---	184.4	146.6	92.1	43.5	10.4	0.6
Mexican												
1999	3,181.5	111.6	2.3	101.5	65.4	156.8	194.2	169.8	107.9	49.1	10.8	0.7
1998	3,198.0	112.1	2.2	102.7	67.0	159.1	197.6	173.5	103.7	48.4	10.9	0.6
1997	3,307.5	116.6	2.5	112.4	77.3	165.1	204.9	176.3	104.2	49.0	11.6	0.6
1996	3,353.5	119.3	2.8	120.7	83.4	174.3	206.3	176.9	103.7	47.6	12.0	0.7
1995	3,273.5	117.0	2.8	124.6	84.4	185.3	208.9	160.5	98.5	46.8	11.9	0.7
1994	3,211.5	115.4	2.8	116.2	78.0	175.0	202.6	165.2	96.9	46.2	11.7	0.7
1993	3,174.0	114.8	2.6	108.7	71.6	164.9	196.6	168.2	100.5	46.1	11.3	0.8
1992 [3]	3,196.5	116.0	2.5	108.8	---	---	202.3	166.3	99.1	47.7	11.8	0.8
1991 [3]	3,317.5	121.6	2.6	117.3	75.9	178.4	209.9	168.2	103.3	49.1	12.3	0.8
1990 [4]	3,214.0	118.9	2.5	108.0	69.7	162.2	200.3	165.3	104.4	49.1	12.4	0.8
1989 [5]	2,916.5	106.6	2.0	94.5	---	---	184.3	153.7	96.1	41.0	11.1	0.6
Puerto Rican												
1999	2,378.0	77.7	1.7	79.7	53.2	117.1	166.0	127.9	64.3	28.4	7.3	0.3
1998	2,268.0	75.5	1.9	81.2	55.1	120.7	164.2	104.4	67.6	26.7	7.2	0.4
1997	2,164.0	71.7	1.8	74.9	48.9	120.0	154.0	109.3	59.1	27.0	6.2	0.5
1996	2,163.0	71.3	2.1	82.3	52.2	143.2	148.8	109.4	58.3	25.9	5.6	*
1995	2,245.5	75.7	3.0	89.0	61.2	139.2	151.5	107.2	64.8	27.7	5.6	0.3
1994	2,490.0	81.9	3.2	106.0	72.8	168.4	181.0	111.7	62.3	28.0	5.6	0.2
1993	2,523.5	82.5	3.1	110.0	73.4	181.0	193.1	108.4	56.3	27.1	6.2	0.5
1992 [3]	2,644.5	89.9	3.5	110.4	---	---	204.9	106.6	66.7	30.0	6.5	0.3
1991 [3]	2,276.0	80.9	2.5	102.7	75.2	143.0	149.4	107.5	61.4	25.7	5.7	0.3
1990 [4]	2,301.0	82.9	2.9	101.6	71.6	141.6	150.1	109.9	62.8	26.2	6.2	0.5
1989 [5]	2,421.0	86.6	3.8	112.7	---	---	171.0	98.0	65.2	26.9	6.3	0.3
Cuban												
1999	1,563.0	51.2	0.7	27.1	15.7	46.2	71.8	92.8	72.9	39.6	7.4	*
1998	1,560.0	50.1	0.8	24.2	15.6	38.8	85.6	95.2	64.5	34.2	7.1	*
1997	1,814.5	57.4	1.0	38.3	25.3	53.4	82.7	123.5	75.7	35.1	6.3	0.3
1996	1,774.5	58.9	0.9	34.0	19.8	54.5	82.5	110.7	85.9	34.3	6.4	*
1995	1,705.5	55.1	*	29.2	16.6	51.2	77.0	110.6	88.0	29.8	6.0	*
1994	1,680.5	55.9	0.6	40.2	23.1	77.4	72.5	98.4	87.6	31.3	5.5	*
1993	1,632.5	55.5	*	33.0	20.4	49.7	68.9	102.0	86.9	31.0	4.7	*
1992 [3]	1,485.5	50.3	1.0	26.3	---	---	51.6	98.4	86.2	28.9	4.7	0.0
1991 [3]	1,385.5	49.1	*	27.7	17.5	41.3	61.2	88.8	68.2	26.7	4.0	*
1990 [4]	1,459.5	52.6	*	30.3	18.2	46.1	64.6	95.4	67.6	28.2	4.9	*
1989 [5]	1,479.0	49.8	0.5	25.1	---	---	64.2	101.8	73.7	27.2	3.0	0.3

See footnotes at end of table

Table 9. Total fertility rates, fertility rates, and birth rates by age and Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1989-99 --Con.

[Fertility rates are live births per 1,000 women aged 15-44 years in specified racial group and birth rates are live births per 1,000 women in specified age and racial group. Population enumerated as of April 1 for 1990, and estimated as of July 1 for all other years. Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5]

Year and origin/race of mother	Total fertility rate	Fertility rate [1]	Age of mother									
			10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years [2]
				Total	15-17 years	18-19 years						
Other Hispanic [6]												
1999	2,836.5	92.6	1.6	81.3	57.1	108.2	148.0	166.2	108.8	48.3	12.4	0.7
1998	2,719.0	90.2	1.9	80.0	56.7	106.9	137.4	157.2	106.9	46.9	12.9	0.6
1997	2,653.5	87.6	2.0	72.1	48.3	106.8	146.4	147.9	104.4	45.4	11.8	0.7
1996	2,762.0	90.2	2.4	69.8	46.6	103.1	166.5	146.3	105.3	50.4	11.0	0.7
1995	2,834.0	94.5	2.4	77.5	54.8	107.8	158.3	161.8	103.7	50.9	11.6	0.6
1994	2,855.5	97.7	2.6	87.9	66.4	112.4	162.0	147.4	109.3	49.4	11.9	0.6
1993	3,038.5	105.0	2.7	106.9	78.2	141.7	175.2	147.1	110.4	52.4	12.5	0.5
1992 [3]	3,076.0	107.0	2.5	112.1	---	---	172.9	157.8	106.6	50.3	12.5	0.5
1991 [3]	2,817.0	99.3	2.1	88.1	58.9	128.8	161.1	150.6	101.5	48.2	11.2	0.6
1990 [4]	2,877.0	102.7	2.1	86.0	57.2	123.8	162.9	155.8	106.9	49.4	11.6	0.7
1989 [5]	2,683.0	95.8	1.7	66.4	---	---	159.2	150.4	85.1	60.3	12.7	0.8
Non-Hispanic [7]												
Total [8]												
1999	1,929.5	60.7	0.8	42.5	23.5	70.6	99.4	110.6	87.8	37.3	7.1	0.4
1998	1,919.5	60.7	0.8	44.3	25.4	72.8	99.9	109.3	85.7	36.5	7.0	0.4
1997	1,888.5	60.1	0.9	45.5	27.0	74.3	98.6	107.0	83.5	35.1	6.7	0.4
1996	1,881.0	60.3	1.0	47.3	28.7	76.2	98.4	106.5	82.0	34.2	6.5	0.3
1995	1,881.0	60.8	1.1	49.6	30.7	79.0	98.5	106.4	80.9	33.2	6.2	0.3
1994	1,905.0	62.0	1.2	52.0	32.5	81.8	100.4	108.6	79.9	32.6	6.0	0.3
1993	1,918.5	63.1	1.2	52.9	33.1	82.6	102.5	110.4	79.0	31.7	5.7	0.3
1992 [3]	1,941.0	64.4	1.2	54.4	33.2	85.5	104.7	112.7	78.4	31.2	5.4	0.2
1991 [3]	1,959.5	65.4	1.3	56.1	34.4	86.1	106.6	114.0	77.8	30.8	5.1	0.2
1990 [4]	1,979.5	67.1	1.3	54.8	33.8	81.4	108.1	116.5	79.2	30.7	5.1	0.2
1989 [5]	1,921.0	65.7	1.3	53.4	---	---	107.8	113.4	74.7	28.6	4.8	0.2
White												
1999	1,850.0	57.8	0.3	34.0	17.1	58.9	89.9	111.0	90.3	37.3	6.8	0.4
1998	1,837.0	57.7	0.3	35.2	18.4	60.6	90.7	109.7	88.0	36.4	6.7	0.4
1997	1,801.0	57.0	0.4	36.0	19.4	61.9	89.8	107.2	85.2	34.9	6.4	0.3
1996	1,795.5	57.3	0.4	37.6	20.6	63.7	90.1	107.0	83.5	34.0	6.2	0.3
1995	1,786.5	57.6	0.4	39.3	22.0	66.1	90.0	106.5	82.0	32.9	5.9	0.3
1994	1,792.0	58.3	0.5	40.4	22.8	67.4	90.9	107.9	80.7	32.1	5.7	0.2
1993	1,792.5	59.0	0.5	40.7	22.7	67.7	92.1	109.2	79.4	31.1	5.3	0.2
1992 [3]	1,810.5	60.2	0.5	41.7	22.7	69.8	93.9	111.5	78.7	30.5	5.1	0.2
1991 [3]	1,826.5	61.0	0.5	43.4	23.6	70.5	95.7	112.7	77.9	30.2	4.7	0.2
1990 [4]	1,850.5	62.8	0.5	42.5	23.2	66.6	97.5	115.3	79.4	30.0	4.7	0.2
1989 [5]	1,770.0	60.5	0.4	39.9	---	---	94.7	111.7	75.0	27.8	4.3	0.2
Black												
1999	2,212.5	72.2	2.7	83.7	53.7	126.8	146.3	104.9	66.3	31.5	6.7	0.4
1998	2,235.5	73.0	3.0	88.2	58.8	130.9	146.4	104.6	66.6	31.2	6.8	0.3
1997	2,210.5	72.4	3.4	90.8	62.6	134.0	143.0	101.9	65.8	30.3	6.6	0.3
1996	2,204.0	72.5	3.8	94.2	66.6	136.6	140.9	100.8	64.9	29.7	6.2	0.3
1995	2,245.0	74.5	4.3	99.3	72.1	141.9	141.7	102.0	65.9	29.4	6.1	0.3
1994	2,365.0	79.0	4.7	107.7	78.6	152.9	150.3	107.0	67.5	29.5	6.0	0.3
1993	2,454.5	82.7	4.7	112.2	82.5	156.7	157.4	111.5	69.0	29.8	6.0	0.3
1992 [3]	2,514.0	85.5	4.8	116.0	83.9	162.9	163.0	114.6	69.1	29.4	5.7	0.2
1991 [3]	2,551.0	87.6	4.9	118.9	86.7	163.1	166.1	116.3	69.3	28.9	5.6	0.2
1990 [4]	2,547.5	89.0	5.0	116.2	84.9	157.5	165.1	118.4	70.2	28.7	5.6	0.3
1989 [5]	2,424.0	84.8	5.2	111.9	---	---	156.3	113.8	65.7	26.3	5.3	0.3

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
--- Data not available.
0.0 Quantity more than zero but less that 0.05.
1 Fertility rates computed by relating total births, regardless of age of mother, to women 15-44 years.
2 Beginning 1997, rates computed by relating births to women aged 45-54 years to women aged 45-49 years.
3 Excludes data for New Hampshire, which did not report Hispanic origin.
4 Excludes data for New Hampshire and Oklahoma, which did not report Hispanic origin.
5 Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.
6 Includes Central and South American and other and unknown Hispanic.
7 Includes origin not stated.
8 Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 10. Number of births, birth rates, fertility rates, total fertility rates, and birth rates for teenagers 15-19 years by age of mother: United States, each State and territory, 1999

[By place of residence. Birth rates are live births per 1,000 estimated population in each area; fertility rates are live births per 1,000 women aged 15-44 years estimated in each area; total fertility rates are sums of birth rates for 5-year age groups multiplied by 5; birth rates by age are live births per 1,000 women in specified age group estimated in each area]

State	Number of births	Birth rate	Fertility rate	Total fertility rate	Teenage birth rate		
					15-19 years		
					Total	15-17 years	18-19 years
United States [1]	3,959,417	14.5	65.9	2,075.0	49.6	28.7	80.3
Alabama	62,122	14.2	63.3	1,965.5	62.8	38.3	95.9
Alaska	9,950	16.1	74.3	2,445.5	41.8	24.5	67.7
Arizona	81,145	17.0	81.1	2,543.0	69.6	41.8	111.1
Arkansas	36,729	14.4	67.7	2,092.5	68.1	37.6	112.3
California	518,508	15.6	69.5	2,151.0	50.7	30.9	78.5
Colorado	62,167	15.3	69.8	2,255.0	48.4	28.7	78.0
Connecticut	43,310	13.2	61.9	1,945.5	33.3	18.7	57.6
Delaware	10,676	14.2	61.7	1,946.0	54.3	33.7	82.3
District of Columbia	7,522	14.5	60.0	1,901.0	83.5	67.0	100.4
Florida	197,023	13.0	65.1	2,092.5	53.5	30.9	88.6
Georgia	126,717	16.3	68.8	2,158.0	65.1	38.1	104.0
Hawaii	17,038	14.4	68.7	2,216.5	43.8	25.6	67.2
Idaho	19,872	15.9	73.2	2,288.0	43.7	25.1	68.9
Illinois	182,068	15.0	68.0	2,139.5	51.1	29.5	83.6
Indiana	86,031	14.5	65.2	2,057.5	51.6	27.5	86.8
Iowa	37,558	13.1	62.3	1,991.0	35.8	18.3	61.4
Kansas	38,782	14.6	67.5	2,151.0	47.4	24.2	81.5
Kentucky	54,403	13.7	61.5	1,925.0	56.4	30.3	93.1
Louisiana	67,136	15.4	67.7	2,088.5	62.8	37.9	96.9
Maine	13,616	10.9	49.4	1,605.0	29.8	13.8	54.8
Maryland	71,967	13.9	60.4	1,918.0	42.6	25.2	69.9
Massachusetts	80,939	13.1	58.5	1,762.5	28.7	16.2	47.2
Michigan	133,607	13.5	60.7	1,924.5	40.5	22.0	68.2
Minnesota	65,970	13.8	62.6	2,017.0	30.0	16.2	51.2
Mississippi	42,684	15.4	67.9	2,049.0	72.5	45.0	111.0
Missouri	75,432	13.8	63.0	2,014.5	49.6	26.9	83.4
Montana	10,785	12.2	59.8	1,967.0	35.1	18.5	60.2
Nebraska	23,907	14.3	66.6	2,136.0	37.0	20.1	61.4
Nevada	29,362	16.2	78.3	2,519.0	64.1	37.0	106.9
New Hampshire	14,041	11.7	50.8	1,613.5	24.0	10.5	46.0
New Jersey	114,105	14.0	64.5	2,032.5	32.8	18.2	55.5
New Mexico	27,191	15.6	72.2	2,300.5	67.4	42.8	104.6
New York	255,612	14.0	63.6	1,967.5	37.0	21.3	59.8
North Carolina	113,795	14.9	67.6	2,133.0	59.5	34.8	96.3
North Dakota	7,639	12.1	57.3	1,826.0	27.7	12.9	50.0
Ohio	152,584	13.6	61.4	1,944.0	46.0	24.7	77.2
Oklahoma	49,010	14.6	68.9	2,157.5	60.5	33.1	101.7
Oregon	45,204	13.6	64.8	2,068.5	46.5	25.3	78.4
Pennsylvania	145,347	12.1	57.4	1,830.5	36.2	20.5	60.1
Rhode Island	12,366	12.5	57.2	1,771.5	38.2	21.6	63.2
South Carolina	54,948	14.1	62.1	1,931.5	60.8	38.1	91.9
South Dakota	10,524	14.4	67.7	2,186.5	37.6	19.3	63.4
Tennessee	77,803	14.2	63.5	2,008.0	62.7	35.0	102.7
Texas	349,245	17.4	77.6	2,427.5	70.1	43.9	108.1
Utah	46,290	21.7	93.1	2,745.5	40.2	22.6	62.7
Vermont	6,567	11.1	49.2	1,570.0	25.7	12.1	46.3
Virginia	95,469	13.9	59.6	1,852.0	42.7	23.0	70.0
Washington	79,586	13.8	62.1	1,988.0	40.1	21.5	67.6
West Virginia	20,728	11.5	54.7	1,687.0	47.9	24.4	81.0
Wisconsin	68,208	13.0	59.3	1,902.5	35.7	20.1	59.2
Wyoming	6,129	12.8	60.8	1,938.5	40.4	22.0	68.2
Puerto Rico	59,563	15.3	65.3	1,865.5	72.0	50.3	102.7
Virgin Islands	1,671	14.0	64.3	1,957.5	55.2	32.0	89.9
Guam	4,021	26.5	129.2	3,898.5	96.6	54.9	163.3
American Samoa	1,736	27.2	125.1	3,746.0	46.4	21.6	86.3
Northern Marianas	1,381	20.0	58.9	1,665.5	62.0	50.5	76.4

[1] Excludes data for the territories.

Table 11. Live births by race of mother: United States, each State and territory, 1999

[By place of residence]

State	Number				
	All races	White	Black	American Indian [1]	Asian or Pacific Islander
United States [2]	3,959,417	3,132,501	605,970	40,170	180,776
Alabama	62,122	41,747	19,753	158	464
Alaska	9,950	6,565	441	2,474	470
Arizona	81,145	70,946	2,729	5,583	1,887
Arkansas	36,729	28,421	7,680	236	392
California	518,508	421,541	35,403	3,243	58,321
Colorado	62,167	56,711	2,899	647	1,910
Connecticut	43,310	36,277	5,383	78	1,572
Delaware	10,676	7,696	2,671	32	277
District of Columbia	7,522	2,200	5,167	6	149
Florida	197,023	146,696	45,078	850	4,399
Georgia	126,717	81,297	42,133	219	3,068
Hawaii	17,038	3,999	460	203	12,376
Idaho	19,872	19,212	78	299	283
Illinois	182,068	140,267	34,239	214	7,348
Indiana	86,031	75,534	9,300	112	1,085
Iowa	37,558	35,363	1,164	208	823
Kansas	38,782	34,611	2,855	367	949
Kentucky	54,403	48,791	4,977	101	534
Louisiana	67,136	38,587	27,267	325	957
Maine	13,616	13,242	106	99	169
Maryland	71,967	44,385	24,260	194	3,128
Massachusetts	80,939	68,328	8,168	151	4,292
Michigan	133,607	105,354	24,044	700	3,509
Minnesota	65,970	57,518	4,016	1,174	3,262
Mississippi	42,684	22,665	19,406	224	389
Missouri	75,432	62,592	11,273	332	1,235
Montana	10,785	9,376	35	1,278	96
Nebraska	23,907	21,685	1,268	467	487
Nevada	29,362	25,036	2,194	431	1,701
New Hampshire	14,041	13,628	139	27	247
New Jersey	114,105	84,444	21,133	187	8,341
New Mexico	27,191	22,864	497	3,460	370
New York	255,612	183,874	53,381	687	17,670
North Carolina	113,795	81,236	28,428	1,679	2,452
North Dakota	7,639	6,743	87	730	79
Ohio	152,584	127,733	22,087	281	2,483
Oklahoma	49,010	38,684	4,629	4,836	861
Oregon	45,204	41,417	904	704	2,179
Pennsylvania	145,347	121,104	20,363	354	3,526
Rhode Island	12,366	10,787	984	152	443
South Carolina	54,948	34,985	19,069	159	735
South Dakota	10,524	8,671	89	1,663	101
Tennessee	77,803	60,004	16,498	142	1,159
Texas	349,245	298,081	40,097	801	10,266
Utah	46,290	44,040	265	619	1,366
Vermont	6,567	6,473	40	9	45
Virginia	95,469	68,509	22,173	150	4,637
Washington	79,586	68,273	3,331	1,875	6,107
West Virginia	20,728	19,799	752	11	166
Wisconsin	68,208	58,770	6,505	971	1,962
Wyoming	6,129	5,740	72	268	49
Puerto Rico	59,563	54,548	5,003	---	---
Virgin Islands	1,671	313	1,288	65	5
Guam	4,021	320	49	2	3,650
American Samoa	1,736	6	-	-	1,730
Northern Marianas	1,381	30	-	-	1,351

- Quantity zero.
--- Data not available.
[1] Includes births to Aleuts and Eskimos.
[2] Excludes data for the territories.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race, see Technical notes.

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Table 12. Live births by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, each State and territory, 1999

[By place of residence]

State	All origins	Origin of mother									Not stated
		Hispanic						Non-Hispanic			
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total [1]	White	Black	
United States [2]	3,959,417	764,339	540,674	57,138	13,088	103,307	50,132	3,147,580	2,346,450	588,981	47,498
Alabama	62,122	1,588	1,129	97	20	114	228	60,499	40,190	19,719	35
Alaska	9,950	594	257	43	9	44	241	9,305	6,066	427	51
Arizona	81,145	32,011	30,605	216	43	557	590	48,050	38,853	2,600	1,084
Arkansas	36,729	1,968	1,702	18	2	214	32	34,725	26,448	7,666	36
California	516,508	249,364	217,450	2,019	686	24,708	4,501	266,240	172,336	34,250	2,904
Colorado	62,167	16,282	11,504	219	29	514	4,016	45,842	40,705	2,793	43
Connecticut	43,310	6,323	505	4,141	85	1,366	226	34,770	28,228	4,993	2,217
Delaware	10,676	857	390	306	4	151	6	9,813	6,863	2,643	6
District of Columbia	7,522	790	57	6	2	676	49	6,680	1,411	5,116	52
Florida	197,023	41,484	9,386	7,851	9,120	13,883	1,244	155,375	106,383	44,083	164
Georgia	126,717	10,557	8,331	500	129	1,403	194	114,645	70,016	41,532	1,515
Hawaii	17,038	2,210	439	672	14	68	1,017	14,803	3,340	425	25
Idaho	19,872	2,356	2,059	21	7	57	212	17,443	16,810	74	73
Illinois	182,068	36,959	31,145	2,796	203	1,090	1,725	145,011	103,430	34,023	98
Indiana	86,031	4,365	3,496	288	21	301	259	81,316	70,896	9,262	350
Iowa	37,558	1,844	1,502	45	7	193	97	35,350	33,261	1,116	364
Kansas	38,782	4,272	3,558	75	24	195	420	34,142	30,030	2,823	368
Kentucky	54,403	951	646	97	37	136	35	53,403	47,837	4,948	49
Louisiana	67,136	1,536	616	107	68	170	577	65,191	36,936	27,036	407
Maine	13,616	135	22	19	2	24	68	12,787	12,449	86	694
Maryland	71,967	4,086	725	319	49	2,238	757	67,561	40,400	24,048	318
Massachusetts	80,939	8,797	335	4,385	80	3,640	357	71,692	60,744	8,548	450
Michigan	133,607	6,230	4,854	437	75	337	527	119,462	91,860	23,692	7,915
Minnesota	65,970	3,316	2,593	90	19	401	213	59,199	50,952	3,921	3,455
Mississippi	42,684	451	235	27	7	27	155	42,175	22,171	19,398	58
Missouri	75,432	2,260	1,699	92	23	268	178	73,113	60,350	11,231	59
Montana	10,785	318	167	11	5	11	124	10,320	8,954	32	147
Nebraska	23,907	2,293	1,809	25	8	245	206	21,044	18,851	1,257	570
Nevada	29,362	9,266	7,593	183	149	845	498	19,690	15,575	2,117	404
New Hampshire	14,041	357	79	105	7	104	62	13,140	12,753	121	544
New Jersey	114,105	21,313	3,148	7,022	869	9,948	326	92,339	64,762	19,151	453
New Mexico	27,191	13,827	4,558	56	30	118	9,065	13,356	9,168	465	8
New York	255,612	53,004	6,858	14,604	410	21,617	9,515	190,103	124,484	47,512	12,505
North Carolina	113,795	9,871	7,413	594	114	1,657	93	103,880	71,496	28,286	44
North Dakota	7,639	121	76	5	2	7	31	7,260	6,463	84	258
Ohio	152,584	3,422	1,703	1,122	45	363	189	148,495	124,221	21,572	667
Oklahoma	49,010	3,919	3,039	114	11	241	514	44,123	34,159	4,466	968
Oregon	45,204	6,904	6,426	73	31	269	105	37,920	34,247	878	380
Pennsylvania	145,347	7,161	1,031	4,793	97	506	734	137,469	113,655	20,000	717
Rhode Island	12,366	1,893	113	596	12	1,045	127	8,763	7,362	856	1,710
South Carolina	54,948	1,720	1,171	167	27	259	96	53,160	33,315	19,030	68
South Dakota	10,524	179	119	7	3	36	14	10,337	8,505	88	8
Tennessee	77,803	2,432	1,799	140	36	347	110	75,334	57,589	16,471	37
Texas	349,245	157,736	139,983	1,046	297	7,793	8,617	190,264	139,861	39,515	1,245
Utah	46,290	5,425	4,370	92	8	498	457	40,754	38,551	254	111
Vermont	6,567	40	8	12	2	4	14	6,384	6,297	35	143
Virginia	95,469	6,520	1,457	575	80	4,014	394	88,764	62,054	22,034	185
Washington	79,586	10,359	8,930	288	49	410	682	65,747	55,433	3,043	3,480
West Virginia	20,728	96	36	14	4	17	25	20,597	19,679	746	35
Wisconsin	68,208	4,041	3,115	603	26	171	126	64,149	54,828	6,446	18
Wyoming	6,129	530	433	5	1	7	84	5,596	5,225	69	3
Puerto Rico	59,563	---	---	---	---	---	---	---	---	---	59,563
Virgin Islands	1,671	300	10	226	2	-	62	1,297	98	1,142	74
Guam	4,021	46	26	11	-	1	8	3,928	286	48	47
American Samoa	1,736	---	---	---	---	---	---	---	---	---	1,736
Northern Marianas	1,381	---	---	---	---	---	---	---	---	---	1,381

- Quantity zero.
--- Data not available.
1 Includes races other than white and black.
2 Excludes data for the territories.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 13. Total number of births, rates (birth, fertility, and total fertility), and percent of births with selected demographic characteristics, by detailed race of mother and place of birth of mother: United States, 1999

Characteristic	All races	White	Black	American Indian [1]	Asian or Pacific Islander					
					Total	Chinese	Japanese	Hawaiian	Filipino	Other
	Number									
Births	3,959,417	3,132,501	605,970	40,170	180,776	28,853	8,722	6,093	30,677	106,431
	Rate									
Birth rate [2]	14.5	13.9	17.4	16.8	16.7	---	---	---	---	---
Fertility rate [3]	65.9	65.1	70.1	69.7	65.6	---	---	---	---	---
Total fertility rate [4]	2,075.0	2,065.0	2,146.5	2,056.5	1,927.0	---	---	---	---	---
Sex ratio [5]	1,049	1,052	1,031	1,029	1,064	1,075	1,063	1,047	1,069	1,062
	Percent									
All births										
Births to mothers under 20 years	12.3	10.9	20.7	20.2	5.1	0.9	2.1	18.2	5.9	5.5
4th- and higher-order births	10.5	9.7	14.9	19.1	7.2	2.3	3.9	14.3	7.2	8.4
Births to unmarried mothers	33.0	26.8	68.9	58.9	15.4	6.9	9.9	50.4	21.1	14.5
Mothers completing 12 years or more of school	78.3	78.7	74.0	67.8	87.6	88.0	98.0	83.2	93.7	85.2
Mothers born in the 50 States and DC	79.8	81.5	88.6	96.0	16.7	9.7	41.3	97.8	20.1	10.9
Mothers born in the 50 States and DC										
Births to mothers under 20 years	13.3	11.2	22.4	20.7	16.0	4.2	4.5	18.3	15.8	21.5
4th- and higher-order births	10.0	8.8	15.0	19.4	7.6	3.8	4.7	14.2	7.2	6.2
Births to unmarried mothers	34.0	25.6	72.1	60.1	33.8	11.3	17.6	50.7	39.6	32.5
Mothers completing 12 years or more of school	82.6	84.8	73.0	67.8	87.1	96.1	96.6	83.3	88.9	83.0
Mothers born outside the 50 States and DC										
Births to mothers under 20 years	8.1	9.6	6.6	7.1	2.9	0.5	0.5	*	3.4	3.6
4th- and higher-order births	12.6	13.9	13.2	11.3	7.1	2.2	3.4	20.8	7.1	8.6
Births to unmarried mothers	29.2	32.1	43.3	29.1	11.7	6.4	4.5	37.4	16.4	12.3
Mothers completing 12 years or more of school	60.9	51.5	81.8	67.9	87.7	87.1	99.1	76.2	94.9	85.4

--- Data not available.
* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Includes births to Aleuts and Eskimos.
2 Birth rate per 1,000 population.
3 Fertility rate per 1,000 women aged 15-44 years.
4 Rates are sums of birth rates for 5-year age groups multiplied by 5.
5 Male live births per 1,000 female live births.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 14. Total number of births, rates (birth, fertility, and total fertility), and percent of births with selected demographic characteristics, by Hispanic origin of mother and by race for mothers of non-Hispanic origin and by place of birth of mother: United States, 1999

Characteristic	All origins [1]	Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total [2]	White	Black
	Number									
Births	3,959,417	764,339	540,674	57,138	13,088	103,307	50,132	3,147,580	2,346,450	588,981
	Rate									
Birth rate [3]	14.5	24.4	26.4	19.4	9.7	[7]23.4		13.2	12.2	17.9
Fertility rate [4]	65.9	102.0	111.6	77.7	51.2	[7]92.6		60.7	57.8	72.2
Total fertility rate [5]	2,075.0	2,985.0	3,181.5	2,378.0	1,563.0	[7]2,836.5		1,929.5	1,850.0	2,212.5
Sex ratio [6]	1,049	1,041	1,040	1,031	1,038	1,054	1,037	1,051	1,055	1,032
	Percent									
All births										
Births to mothers under 20 years	12.3	16.7	17.4	21.1	7.7	10.0	19.5	11.2	9.2	20.7
4th- and higher-order births	10.5	13.5	14.6	11.9	5.3	11.2	10.6	9.8	8.5	14.9
Births to unmarried mothers	33.0	42.2	40.1	59.6	26.4	43.7	45.8	30.9	22.1	69.1
Mothers completing 12 years or more of school	78.3	50.9	44.8	65.6	87.7	62.1	67.5	84.8	87.4	74.1
Mothers born in the 50 States and DC	79.8	39.2	38.7	64.6	41.4	10.4	74.6	89.5	94.8	89.9
Mothers born in the 50 States and DC										
Births to mothers under 20 years	13.3	25.0	26.2	23.1	13.4	21.1	22.8	12.1	9.5	22.4
4th- and higher-order births	10.0	11.2	11.8	11.0	5.3	5.0	10.5	9.8	8.5	15.1
Births to unmarried mothers	34.0	48.0	46.3	62.1	27.2	45.3	47.4	32.5	22.7	72.2
Mothers completing 12 years or more of school	82.6	65.5	63.5	65.8	87.0	79.3	69.2	84.4	87.3	73.1
Mothers born outside the 50 States and DC										
Births to mothers under 20 years	8.1	11.3	11.9	17.5	3.7	8.7	9.4	3.7	3.5	6.1
4th- and higher-order births	12.6	15.0	16.3	13.5	5.2	11.9	10.8	9.1	9.5	13.6
Births to unmarried mothers	29.2	38.3	36.1	54.9	25.9	43.6	39.9	16.6	10.6	41.0
Mothers completing 12 years or more of school	60.9	41.4	32.9	65.3	88.2	60.1	62.7	88.0	90.3	84.0

[1] Includes origin not stated.
[2] Includes races other than white and black.
[3] Birth rate per 1,000 population.
[4] Fertility rate per 1,000 women aged 15–44 years.
[5] Rates are sums of birth rates for 5-year age groups multiplied by 5.
[6] Male live births per 1,000 female live births.
[7] Includes Central and South American and other and unknown Hispanic.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 15. Live births by race of mother and observed and seasonally adjusted birth and fertility rates, by month: United States, 1999

[Rates on an annual basis per 1,000 population for specified month. Birth rates are live births per 1,000 total population. Fertility rates are live births per 1,000 women aged 15-44 years]

Month	Number			Observed		Seasonally adjusted [1]	
	All races [2]	White	Black	Birth rate	Fertility rate	Birth rate	Fertility rate
Total	3,959,417	3,132,501	605,970	14.5	65.9	...	...
January	319,182	249,763	51,703	13.8	62.5	14.5	65.3
February	297,568	234,996	46,119	14.3	64.6	14.5	65.6
March	332,939	264,758	49,704	14.4	65.2	14.7	66.9
April	316,889	253,265	45,896	14.2	64.2	14.4	65.2
May	328,526	262,086	48,059	14.2	64.4	14.3	65.0
June	332,201	264,732	49,122	14.8	67.3	14.6	66.3
July	349,812	277,492	53,190	15.1	68.5	14.5	65.5
August	351,371	278,200	54,025	15.2	68.8	14.6	66.3
September	349,409	276,895	53,181	15.6	70.7	14.7	66.9
October	332,980	263,164	51,078	14.3	65.2	14.5	65.7
November	315,289	247,481	49,655	14.0	63.8	14.5	66.1
December	333,251	259,669	54,238	14.3	65.3	14.5	65.8

... Category not applicable.

[1] The method of seasonal adjustment, developed by the U.S. Bureau of the Census, is described in *The X11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15 (1967 revision).
[2] Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 16. Live births by day of week and index of occurrence by method of delivery, day of week, and race of mother: United States, 1999

Day of week and race of mother	Average number of births	Index of occurrence [1]			
		Total [2]	Method of delivery		
			Vaginal	Cesarean	
				Total	Primary	Repeat
All races [3]	10,848	100.0	100.0	100.0	100.0	100.0
Sunday	7,731	71.3	76.6	52.7	62.3	36.4
Monday	11,018	101.6	100.1	106.5	98.0	120.8
Tuesday	12,424	114.5	112.1	122.9	119.5	128.7
Wednesday	12,183	112.3	110.4	118.9	116.8	122.4
Thursday	11,893	109.6	108.0	115.2	113.0	118.8
Friday	12,012	110.7	107.9	120.6	115.6	129.0
Saturday	8,654	79.8	84.6	63.0	74.6	43.5
White	8,582	100.0	100.0	100.0	100.0	100.0
Sunday	5,963	69.5	74.9	50.5	60.4	34.0
Monday	8,763	102.1	100.6	107.2	98.2	122.1
Tuesday	9,910	115.5	113.1	123.8	120.6	129.1
Wednesday	9,711	113.2	111.2	119.8	117.7	123.3
Thursday	9,481	110.5	108.9	116.0	113.4	120.3
Friday	9,540	111.2	108.2	121.6	116.7	129.9
Saturday	6,691	78.0	82.9	60.8	72.7	41.0
Black	1,660	100.0	100.0	100.0	100.0	100.0
Sunday	1,288	77.6	82.7	60.9	69.9	45.5
Monday	1,643	99.0	97.4	103.9	96.6	116.3
Tuesday	1,854	111.7	109.1	120.0	115.7	127.3
Wednesday	1,815	109.3	107.2	116.1	113.8	120.1
Thursday	1,776	107.0	105.4	112.2	111.7	112.9
Friday	1,809	109.0	107.1	115.5	110.9	123.3
Saturday	1,434	86.4	91.0	71.2	81.1	54.3

[1] Index is the ratio of the average number of births by a specified method of delivery on a given day of the week to the average daily number of births by a specified method of delivery for the year, multiplied by 100.
[2] Includes method of delivery not stated.
[3] Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 17. Number, birth rate, and percent of births to unmarried women by age, race, and Hispanic origin of mother: United States, 1999

Measure and age of mother	All races [1]	White		Black		Hispanic [2]
		Total	Non-Hispanic	Total	Non-Hispanic	
Number						
All ages	1,308,560	839,552	518,291	417,476	406,802	322,311
Under 15 years	8,737	4,457	1,954	3,958	3,871	2,542
15-19 years	374,485	245,467	154,620	115,739	113,114	90,935
15 years	21,407	12,821	6,409	7,812	7,648	6,470
16 years	46,078	29,623	16,465	14,747	14,390	13,237
17 years	75,906	50,509	30,811	22,592	22,094	19,745
18 years	105,288	69,957	45,906	31,589	30,862	24,005
19 years	125,806	82,557	55,029	38,999	38,120	27,478
20-24 years	476,497	303,489	191,268	155,600	151,977	112,439
25-29 years	246,873	156,933	91,864	78,984	76,821	65,387
30-34 years	124,894	79,427	46,787	39,643	38,279	32,975
35-39 years	62,637	40,308	25,592	19,362	18,711	14,768
40 years and over	14,437	9,471	6,206	4,190	4,029	3,265
Rate per 1,000 unmarried women in specified group						
15-44 years [3]	44.4	38.1	27.9	71.5	---	93.4
15-19 years	40.4	33.7	25.5	78.4	---	73.8
15-17 years	25.5	21.0	14.6	51.5	---	52.4
18-19 years	63.3	53.3	42.3	117.9	---	107.6
20-24 years	72.9	61.4	46.0	130.3	---	143.3
25-29 years	60.2	53.4	37.0	89.6	---	143.6
30-34 years	39.3	35.8	25.0	50.3	---	93.3
35-39 years	19.3	17.5	13.0	24.7	---	44.1
40-44 years [4]	4.6	4.1	3.1	5.9	---	11.3
Percent of births to unmarried women						
All ages	33.0	26.8	22.1	68.9	69.1	42.2
Under 15 years	96.5	94.0	95.4	99.5	99.5	93.3
15-19 years	78.7	72.6	72.6	95.5	95.6	72.9
15 years	93.5	90.3	92.0	99.3	99.4	88.8
16 years	89.4	85.5	87.2	98.7	98.7	83.6
17 years	85.1	80.5	81.8	97.8	97.8	78.6
18 years	78.6	72.7	73.7	95.9	96.0	71.0
19 years	70.5	63.5	63.2	92.2	92.3	64.4
20-24 years	48.5	40.6	37.2	80.5	80.7	48.6
25-29 years	22.9	18.0	13.8	56.9	57.0	32.1
30-34 years	14.0	10.7	7.8	43.3	43.3	25.1
35-39 years	14.4	11.3	8.7	41.0	40.9	25.4
40 years and over	16.5	13.4	10.7	42.0	41.9	27.3

--- Data not available.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Birth rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.
4 Birth rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.

NOTES: For 48 States and the District of Columbia, marital status is reported on the birth certificate; for Michigan and New York, mother's marital status is inferred; see Technical notes. Rates cannot be computed for unmarried non-Hispanic black women because the necessary populations are not available.

Table 18. Birth rates for unmarried women by age of mother: United States, 1970, 1975, and 1980-99, and by age, race, and Hispanic origin of mother: United States, 1980-99

[Rates are live births to unmarried women per 1,000 unmarried women. Population estimated as of July 1]

Year and race and Hispanic origin	Age of Mother								
	15-44 years [1]	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years [2]
		Total	15-17 years	18-19 years					
All races [3]									
1999 [4]	44.4	40.4	25.5	63.3	72.9	60.2	39.3	19.3	4.6
1998 [4]	44.3	41.5	27.0	64.5	72.3	58.4	39.1	19.0	4.6
1997 [4]	44.0	42.2	28.2	65.2	71.0	56.2	39.0	19.0	4.6
1996 [4]	44.8	42.9	29.0	65.9	70.7	56.8	41.1	20.1	4.8
1995 [4]	45.1	44.4	30.5	67.6	70.3	56.1	39.6	19.5	4.7
1994 [4]	46.9	46.4	32.0	70.1	72.2	59.0	40.1	19.8	4.7
1993 [4]	45.3	44.5	30.6	66.9	69.2	57.1	38.5	19.0	4.4
1992 [4]	45.2	44.6	30.4	67.3	68.5	56.5	37.9	18.8	4.1
1991 [4]	45.2	44.8	30.9	65.7	68.0	56.5	38.1	18.0	3.8
1990 [4]	43.8	42.5	29.6	60.7	65.1	56.0	37.6	17.3	3.6
1989 [4]	41.6	40.1	28.7	56.0	61.2	52.8	34.9	16.0	3.4
1988 [4]	38.5	36.4	26.4	51.5	56.0	48.5	32.0	15.0	3.2
1987 [4]	36.0	33.8	24.5	48.9	52.6	44.5	29.6	13.5	2.9
1986 [4]	34.2	32.3	22.8	48.0	49.3	42.2	27.2	12.2	2.7
1985 [4]	32.8	31.4	22.4	45.9	46.5	39.9	25.2	11.6	2.5
1984 [4, 5]	31.0	30.0	21.9	42.5	43.0	37.1	23.3	10.9	2.5
1983 [4, 5]	30.3	29.5	22.0	40.7	41.8	35.5	22.4	10.2	2.6
1982 [4, 5]	30.0	28.7	21.5	39.6	41.5	35.1	21.9	10.0	2.7
1981 [4, 5]	29.5	27.9	20.9	39.0	41.1	34.5	20.8	9.8	2.6
1980 [4, 5]	29.4	27.6	20.6	39.0	40.9	34.0	21.1	9.7	2.6
1980 [5, 6]	28.4	27.5	20.7	38.7	39.7	31.4	18.5	8.4	2.3
1975 [5, 6]	24.5	23.9	19.3	32.5	31.2	27.5	17.9	9.1	2.6
1970 [6, 7]	26.4	22.4	17.1	32.9	38.4	37.0	27.1	13.6	3.5
White, total									
1999 [4]	38.1	33.7	21.0	53.3	61.4	53.4	35.8	17.5	4.1
1998 [4]	37.5	34.0	21.8	53.5	60.5	50.9	34.9	17.0	4.0
1997 [4]	37.0	34.2	22.4	53.6	59.2	49.3	34.4	16.7	3.9
1996 [4]	37.6	34.5	22.7	54.1	59.0	49.9	36.1	17.8	4.3
1995 [4]	37.5	35.5	23.6	55.4	58.0	48.7	34.2	16.9	4.2
1994 [4]	38.3	36.2	24.1	56.4	58.1	49.7	34.2	17.3	4.3
1993 [4]	35.9	33.6	22.1	52.4	54.2	46.7	32.2	16.4	3.9
1992 [4]	35.2	33.0	21.6	51.5	52.7	45.4	31.5	16.2	3.6
1991 [4]	34.6	32.8	21.8	49.6	51.5	44.6	31.1	15.2	3.2
1990 [4]	32.9	30.6	20.4	44.9	48.2	43.0	29.9	14.5	3.2
1989 [4]	30.2	28.0	19.3	40.2	43.8	39.1	26.8	13.1	2.9
1988 [4]	27.4	25.3	17.6	36.8	39.2	35.4	24.2	12.1	2.7
1987 [4]	25.3	23.2	16.2	34.5	36.6	32.0	22.3	10.7	2.4
1986 [4]	23.9	21.8	14.9	33.5	34.2	30.5	20.1	9.7	2.2
1985 [4]	22.5	20.8	14.5	31.2	31.7	28.5	18.4	9.0	2.0
1984 [4, 5]	20.6	19.3	13.7	27.9	28.5	25.5	16.8	8.4	2.0
1983 [4, 5]	19.8	18.7	13.6	26.4	27.1	23.8	15.9	7.8	2.0
1982 [4, 5]	19.3	18.0	13.1	25.3	26.5	23.1	15.3	7.4	2.1
1981 [4, 5]	18.6	17.2	12.6	24.6	25.8	22.3	14.2	7.2	1.9
1980 [4, 5]	18.1	16.5	12.0	24.1	25.1	21.5	14.1	7.1	1.8
White, non-Hispanic									
1999 [4]	27.9	25.5	14.6	42.3	46.0	37.0	25.0	13.0	3.1
1998 [4]	28.0	26.1	15.6	42.8	46.0	36.1	25.2	13.1	3.0
1997 [4]	27.6	26.4	16.2	43.1	44.8	35.2	25.1	12.7	2.9
1996 [4]	28.3	27.0	16.9	43.8	44.5	35.7	26.6	13.9	3.3
1995 [4]	28.2	27.7	17.6	44.5	43.8	34.9	25.3	13.0	3.2
1994 [4]	28.5	28.1	18.0	45.0	43.8	35.0	24.8	12.9	3.1
1993 [4]	---	---	---	---	---	---	---	---	---
1992 [4]	---	---	---	---	---	---	---	---	---
1991 [4]	---	---	---	---	---	---	---	---	---
1990 [4, 8]	24.4	25.0	16.2	37.0	36.4	30.3	20.5	6.1	---

See footnotes at end of table.

Table 18. Birth rates for unmarried women by age of mother: United States, 1970, 1975, and 1980-99, and by age, race, and Hispanic origin of mother: United States, 1980-99 --Con.

[Rates are live births to unmarried women per 1,000 unmarried women. Population estimated as of July 1]

Year and race and Hispanic origin	Age of Mother								
	15-44 years [1]	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years [2]
		Total	15-17 years	18-19 years					
Black, total									
1999 [4]	71.5	78.4	51.5	117.9	130.3	89.6	50.3	24.7	5.9
1998 [4]	73.3	83.4	56.5	123.5	131.0	90.3	51.7	24.7	6.1
1997 [4]	73.4	86.4	60.6	127.2	127.8	85.2	52.3	24.7	6.5
1996 [4]	74.4	89.2	64.0	129.2	125.8	84.5	54.5	25.5	6.1
1995 [4]	75.9	92.8	68.6	131.2	127.7	84.8	54.3	25.6	6.0
1994 [4]	82.1	100.9	75.1	141.6	138.1	93.6	57.2	26.3	5.9
1993 [4]	84.0	102.4	76.8	141.6	142.2	94.5	57.3	25.9	5.8
1992 [4]	86.5	105.9	78.0	147.8	144.3	98.2	57.7	25.8	5.4
1991 [4]	89.5	108.5	80.4	148.7	147.5	100.9	60.1	25.6	5.4
1990 [4]	90.5	106.0	78.8	143.7	144.8	105.3	61.5	25.5	5.1
1989 [4]	90.7	104.5	78.9	140.9	142.4	102.9	60.5	24.9	5.0
1988 [4]	86.5	96.1	73.5	130.5	133.6	97.2	57.4	24.1	5.0
1987 [4]	82.6	90.9	69.9	123.0	126.1	91.6	53.1	22.4	4.7
1986 [4]	79.0	88.5	67.0	121.1	118.0	84.6	50.0	20.6	4.4
1985 [4]	77.0	87.6	66.8	117.9	113.1	79.3	47.5	20.4	4.3
1984 [4, 5]	75.2	86.1	66.5	113.6	107.9	77.8	43.8	19.4	4.3
1983 [4, 5]	76.2	85.5	66.8	111.9	107.2	79.7	43.8	19.4	4.8
1982 [4, 5]	77.9	85.1	66.3	112.7	109.3	82.7	44.1	19.5	5.2
1981 [4, 5]	79.4	85.0	65.9	114.2	110.7	83.1	45.5	19.6	5.6
1980 [4, 5]	81.1	87.9	68.8	118.2	112.3	81.4	46.7	19.0	5.5
Hispanic [9]									
1999 [4]	93.4	73.8	52.4	107.6	143.3	143.6	93.3	44.1	11.3
1998 [4]	90.1	73.9	53.0	107.8	135.0	136.0	85.4	40.1	12.0
1997 [4]	91.4	75.2	55.0	109.5	139.1	135.0	86.1	42.0	12.2
1996 [4]	93.2	74.5	53.4	110.4	146.5	139.1	90.8	42.3	12.3
1995 [4]	95.0	78.7	56.3	117.9	148.9	133.8	89.2	43.4	12.2
1994 [4]	101.2	82.6	59.0	123.6	154.8	141.6	95.5	48.4	14.0
1993 [4]	95.2	74.6	51.9	114.6	140.5	137.7	90.9	47.8	14.1
1992 [4]	95.3	72.9	51.0	110.5	142.2	138.3	91.8	48.1	14.5
1991 [4]	93.7	72.4	50.5	109.6	135.4	137.5	89.1	47.7	14.2
1990 [4]	89.6	65.9	45.9	98.9	129.8	131.7	88.1	50.8	13.7

--- Data not available.
1 Rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.
2 Rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.
3 Includes races other than white and black.
4 Data for States in which marital status was not reported have been inferred and included with data from the remaining States; see Technical notes.
5 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.
6 Births to unmarried women are estimated for the United States from data for registration areas in which marital status of mother was reported; see Technical notes.
7 Based on a 50-percent sample of births.
8 Rates for 1990 based on data for 48 States and the District of Columbia which reported Hispanic origin on the birth certificate. Rate shown for ages 35-39 years is based on births to unmarried women aged 35-44 years.
9 Includes all persons of Hispanic origin of any race.

NOTE: Rates cannot be computed for unmarried non-Hispanic black women because the necessary populations are not available.

Table 19. Number and percent of births to unmarried women by race and Hispanic origin of mother: United States, each State and territory, 1999

[By place of residence]

State	Births to unmarried women						Percent unmarried					
		White		Black				White		Black		
	All races [1]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [2]	All races [1]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [2]
United States [3]	1,308,560	839,552	518,291	417,476	406,802	322,311	33.0	26.8	22.1	68.9	69.1	42.2
Alabama	20,693	7,194	6,781	13,390	13,378	420	33.3	17.2	16.9	67.8	67.8	26.4
Alaska	3,301	1,519	1,375	205	199	189	33.2	23.1	22.7	46.5	46.6	31.8
Arizona	31,463	25,537	9,564	1,737	1,660	16,081	38.8	36.0	24.6	63.6	63.8	50.2
Arkansas	12,932	7,028	6,352	5,732	5,723	688	35.2	24.7	24.0	74.6	74.7	35.0
California	170,372	138,021	35,752	22,163	21,463	103,006	32.9	32.7	20.7	62.6	62.7	41.3
Colorado	15,818	13,669	7,483	1,580	1,518	6,325	25.4	24.1	18.4	54.5	54.4	38.8
Connecticut	12,562	8,766	4,636	3,624	3,366	3,958	29.0	24.2	16.4	67.3	67.4	62.6
Delaware	4,147	2,159	1,745	1,946	1,919	440	38.8	28.1	25.4	72.9	72.6	51.3
District of Columbia	4,642	538	115	4,078	4,050	427	61.7	24.5	8.2	78.9	79.2	54.1
Florida	73,824	42,556	27,767	30,270	29,708	15,460	37.5	29.0	26.1	67.2	67.4	37.3
Georgia	46,328	17,808	14,028	28,087	27,824	3,734	36.6	21.9	20.0	66.7	67.0	35.4
Hawaii	5,593	710	559	115	99	1,004	32.8	17.8	16.7	25.0	23.3	45.4
Idaho	4,302	4,058	3,308	32	30	738	21.6	21.1	19.7	41.0	40.5	31.3
Illinois	62,088	35,033	20,050	26,433	26,292	15,083	34.1	25.0	19.4	77.2	77.3	40.8
Indiana	29,640	22,294	20,230	7,167	7,146	1,977	34.5	29.5	28.5	77.1	77.2	45.3
Iowa	10,330	9,196	8,388	830	800	741	27.5	26.0	25.2	71.3	71.7	40.2
Kansas	11,098	8,804	7,110	1,975	1,958	1,656	28.6	25.4	23.7	69.2	69.4	38.8
Kentucky	16,540	12,788	12,484	3,633	3,619	302	30.4	26.2	26.1	73.0	73.1	31.8
Louisiana	30,109	9,684	9,196	20,102	19,928	474	44.8	25.1	24.9	73.7	73.7	30.8
Maine	4,260	4,114	3,798	52	39	49	31.3	31.1	30.5	49.1	45.3	36.3
Maryland	25,083	9,667	8,038	15,055	14,945	1,657	34.9	21.8	19.9	62.1	62.1	40.5
Massachusetts	21,476	15,842	11,340	4,832	3,853	5,398	26.5	23.2	18.7	59.2	58.8	61.4
Michigan	44,184	26,000	21,070	17,412	17,228	2,556	33.1	24.7	22.9	72.4	72.7	41.0
Minnesota	17,065	12,862	10,980	2,484	2,431	1,562	25.9	22.4	21.5	61.9	62.0	47.1
Mississippi	19,606	4,750	4,598	14,629	14,626	150	45.9	21.0	20.7	75.4	75.4	33.3
Missouri	25,737	16,729	15,853	8,629	8,607	894	34.1	26.7	26.3	76.5	76.6	39.6
Montana	3,232	2,298	2,144	14	13	122	30.0	24.5	23.9	*	*	38.4
Nebraska	6,181	4,920	3,840	883	878	943	25.9	22.7	20.4	69.6	69.8	41.1
Nevada	10,483	8,335	4,441	1,495	1,446	3,838	35.7	33.3	28.5	68.1	68.3	41.4
New Hampshire	3,399	3,316	2,995	52	45	146	24.2	24.3	23.5	37.4	37.2	40.9
New Jersey	32,556	18,280	8,398	13,732	12,672	10,850	28.5	21.6	13.0	65.0	66.2	50.9
New Mexico	12,272	9,446	2,446	314	293	7,084	45.1	41.3	26.7	63.2	63.0	51.2
New York	93,613	54,221	23,792	36,227	32,113	31,819	36.6	29.5	19.1	67.9	67.6	60.0
North Carolina	37,814	17,708	13,667	18,885	18,818	4,112	33.2	21.8	19.1	66.4	66.5	41.7
North Dakota	2,099	1,547	1,458	23	21	41	27.5	22.9	22.6	26.4	25.0	33.9
Ohio	52,038	34,846	33,246	16,805	16,380	1,627	34.1	27.3	26.8	76.1	75.9	47.5
Oklahoma	16,252	10,552	8,983	3,277	3,172	1,445	33.2	27.3	26.3	70.8	71.0	36.9
Oregon	13,750	12,399	9,590	569	550	2,732	30.4	29.9	28.0	62.9	62.6	39.6
Pennsylvania	47,865	31,502	26,968	15,768	15,507	4,393	32.9	26.0	23.7	77.4	77.5	61.3
Rhode Island	4,242	3,327	1,886	647	564	1,067	34.3	30.8	25.6	65.8	65.9	56.4
South Carolina	21,441	7,794	7,179	13,472	13,454	639	39.0	22.3	21.5	70.6	70.7	37.2
South Dakota	3,348	2,046	1,991	32	32	62	31.8	23.6	23.4	36.0	36.4	34.6
Tennessee	26,981	14,597	13,691	12,114	12,100	923	34.7	24.3	23.8	73.4	73.5	38.0
Texas	109,244	83,002	28,096	25,007	24,650	54,876	31.3	27.8	20.1	62.4	62.4	34.8
Utah	7,722	7,032	4,987	136	131	2,045	16.7	16.0	12.9	51.3	51.6	37.7
Vermont	1,901	1,866	1,801	22	20	14	28.9	28.8	28.6	55.0	57.1	*
Virginia	28,334	13,958	11,550	13,903	13,832	2,445	29.7	20.4	18.6	62.7	62.8	37.5
Washington	22,335	18,072	13,316	1,853	1,701	4,100	28.1	26.5	24.0	55.6	55.9	39.6
West Virginia	6,581	5,975	5,930	585	582	38	31.7	30.2	30.1	77.8	78.0	39.6
Wisconsin	19,906	13,629	11,941	5,430	5,382	1,768	29.2	23.2	21.8	83.5	83.5	43.8
Wyoming	1,778	1,558	1,355	39	37	213	29.0	27.1	25.9	54.2	53.6	40.2
Puerto Rico	28,658	25,547	---	3,108	---	---	48.1	46.8	---	62.1	---	---
Virgin Islands	1,121	161	27	948	839	200	67.1	51.4	27.6	73.6	73.5	66.7
Guam	2,246	68	57	18	18	18	55.9	21.3	19.9	*	*	*
American Samoa	616	2	---	-	---	---	35.5	*	---	*	---	---
Northern Marianas	655	6	---	-	---	---	47.4	*	---	*	---	---

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
- Quantity zero.
--- Data not available.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Excludes data for the territories.

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Table 20. Birth rates by age and race of father: United States, 1980-99

[Rates are live births per 1,000 men in specified group. Population enumerated as of April 1 for 1980 and 1990 and estimated as of July 1 for all other years. Figures for age of father not stated are distributed]

Year and race of father	15-54 years [1]	Age of father								
		15-19 years [2]	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55 years and over
All races [3]										
1999	50.8	21.0	83.8	114.8	101.6	54.9	21.0	7.2	2.5	0.3
1998	51.0	21.6	84.8	112.6	99.2	53.9	20.9	7.2	2.5	0.3
1997	50.4	22.2	83.4	108.5	95.7	52.1	20.6	7.1	2.5	0.3
1996	51.1	23.0	84.4	107.7	94.3	51.5	20.4	6.9	2.5	0.3
1995	52.0	24.3	86.0	107.2	93.3	51.0	20.3	7.1	2.6	0.3
1994	53.2	25.0	87.3	108.8	93.3	50.9	20.2	7.2	2.6	0.3
1993	54.4	24.8	87.1	110.8	93.5	51.1	20.2	7.3	2.7	0.4
1992	55.8	24.6	87.7	113.1	94.2	51.3	20.4	7.3	2.7	0.4
1991	57.1	24.8	88.0	114.7	95.1	51.8	20.2	7.5	2.7	0.4
1990	58.4	23.5	88.0	116.4	97.8	53.0	21.0	7.5	2.8	0.4
1989	57.2	21.9	85.4	114.3	94.8	51.3	20.4	7.4	2.7	0.6
1988	55.8	19.6	82.4	111.6	93.2	49.9	19.9	7.1	2.7	0.4
1987	55.0	18.3	80.5	109.9	91.2	48.6	19.0	6.9	2.6	0.4
1986	54.8	17.9	80.3	109.6	90.3	46.8	18.3	6.7	2.6	0.4
1985	55.6	18.0	81.2	112.3	91.1	47.3	18.1	6.6	2.5	0.4
1984 [4]	55.0	17.8	80.7	111.4	89.9	46.0	17.8	6.3	2.4	0.4
1983 [4]	55.1	18.2	82.6	113.0	89.1	45.2	17.4	6.4	2.3	0.4
1982 [4]	56.4	18.6	86.5	117.3	90.3	44.5	17.5	6.4	2.3	0.4
1981 [4]	56.3	18.4	88.4	119.1	88.7	43.3	17.0	6.2	2.3	0.4
1980 [4]	57.0	18.8	92.0	123.1	91.0	42.8	17.1	6.1	2.2	0.3
White										
1999	48.2	17.5	76.8	113.4	101.7	53.4	19.6	6.4	2.1	0.3
1998	48.3	18.0	77.5	110.9	99.1	52.5	19.4	6.4	2.2	0.3
1997	47.7	18.2	76.1	106.8	95.3	50.6	19.1	6.3	2.1	0.3
1996	48.4	18.8	77.2	106.4	94.0	50.2	19.0	6.2	2.1	0.2
1995	49.2	19.7	78.5	105.7	92.9	49.6	19.0	6.3	2.2	0.2
1994	50.0	19.8	78.5	106.4	92.5	49.3	18.9	6.3	2.2	0.3
1993	50.9	19.2	77.9	108.0	92.4	49.2	18.6	6.4	2.2	0.2
1992	52.2	18.9	78.2	110.1	93.2	49.3	18.8	6.4	2.2	0.3
1991	53.3	19.1	78.4	111.5	93.6	49.7	18.5	6.5	2.2	0.3
1990	54.6	18.1	78.3	113.2	96.1	50.9	19.2	6.5	2.2	0.3
1989	53.3	16.7	75.9	110.8	93.0	49.1	18.7	6.3	2.1	0.4
1988	52.2	14.8	73.7	108.3	91.2	47.6	18.1	6.1	2.1	0.3
1987	51.6	13.9	72.8	107.0	89.5	46.2	17.3	5.9	2.0	0.3
1986	51.7	13.8	73.3	107.0	88.7	44.4	16.6	5.7	2.0	0.3
1985	52.6	14.0	74.7	109.9	89.5	44.8	16.3	5.6	1.9	0.3
1984 [4]	51.8	14.0	74.3	108.8	87.9	43.5	16.0	5.3	1.9	0.3
1983 [4]	52.0	14.4	76.3	110.2	86.8	42.6	15.5	5.3	1.8	0.3
1982 [4]	53.1	14.9	80.1	114.2	87.5	41.7	15.6	5.3	1.9	0.3
1981 [4]	52.9	15.0	81.7	115.8	85.8	40.3	15.0	5.2	1.8	0.3
1980 [4]	53.4	15.4	84.9	119.4	87.8	39.7	15.0	5.1	1.8	0.3
Black										
1999	66.9	41.5	133.5	134.0	95.4	55.2	26.6	11.6	5.3	1.0
1998	68.1	43.3	136.8	134.4	94.3	54.9	26.7	11.9	5.3	1.0
1997	68.0	45.6	136.6	130.2	91.8	53.3	26.1	11.7	5.5	1.1
1996	68.3	47.2	138.0	127.2	89.3	52.3	25.7	11.6	5.5	1.1
1995	70.1	50.5	140.5	126.6	89.6	52.6	25.7	12.1	5.6	1.1
1994	74.9	54.6	150.5	131.9	92.9	54.2	26.4	13.0	6.0	1.1
1993	78.3	56.6	153.8	136.0	95.3	56.6	27.7	13.5	6.4	1.3
1992	81.0	57.4	158.0	140.1	96.8	56.9	28.4	13.9	6.2	1.4
1991	83.4	58.0	158.5	143.3	100.1	58.8	29.4	14.2	6.7	1.4
1990	84.9	55.2	158.2	144.9	103.2	60.4	31.1	15.0	7.1	1.4
1989	84.1	52.9	153.4	143.5	101.4	59.9	31.1	14.9	6.9	2.7
1988	80.7	48.1	144.1	137.9	100.0	58.0	30.6	14.3	6.9	1.4
1987	78.3	44.6	136.1	133.9	97.4	58.0	30.0	13.8	6.6	1.3
1986	77.2	42.6	131.4	131.6	97.4	58.0	29.1	13.5	6.7	1.3
1985	77.2	41.8	129.5	132.7	97.3	59.4	29.5	13.3	6.5	1.2
1984 [4]	76.7	40.9	128.0	132.2	98.3	58.4	29.3	13.3	6.1	1.2
1983 [4]	77.2	40.7	129.1	134.4	99.0	59.6	29.6	13.5	6.0	1.2
1982 [4]	79.5	40.3	133.4	141.2	103.6	61.1	29.6	13.9	6.0	1.2
1981 [4]	80.4	38.9	138.4	145.6	104.3	61.3	29.7	13.3	5.7	1.2
1980 [4]	83.0	40.1	145.3	152.8	109.6	62.0	31.2	13.6	5.9	1.1

1 Rates computed by relating total births, regardless of age of father, to men aged 15-54 years.
2 Rates computed by relating births of fathers under 20 years of age to men aged 15-19 years.
3 Includes races other than white and black.
4 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all men (including Hispanic men) are classified only according to their race; see Technical notes. Age of father was not stated for 14 percent of births in 1999.

Table 21. Live births by educational attainment, and percent of mothers completing 12 years or more and 16 years or more of school, by age and race and Hispanic origin of mother: United States, 1999

Age and race of mother	Total	Years of school completed by mother						Percent 12 years or more	Percent 16 years or more
		0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not Stated		
All races [1]									
All ages	3,959,417	222,661	623,934	1,254,283	858,068	937,071	63,400	78.3	24.1
Under 15 years	9,054	6,823	1,866	-	-	-	365	-	-
15-19 years	476,050	39,021	246,934	157,339	23,726	-	9,030	38.8	-
15 years	22,896	6,993	15,190	-	-	-	713	-	-
16 years	51,516	6,593	42,450	1,302	-	-	1,171	2.6	-
17 years	89,176	6,953	66,600	13,539	293	-	1,791	15.8	-
18 years	133,988	8,285	63,654	55,711	3,985	-	2,353	45.3	-
19 years	178,474	10,197	59,040	86,787	19,448	-	3,002	60.5	-
20-24 years	981,929	60,243	199,572	429,099	225,011	52,477	15,527	73.1	5.4
25-29 years	1,078,252	54,948	101,264	331,150	284,683	290,320	15,887	85.3	27.3
30-34 years	892,400	36,700	48,888	216,015	207,210	370,390	13,197	90.3	42.1
35-39 years	434,294	19,372	21,243	101,083	98,525	186,589	7,482	90.5	43.7
40 years and over	87,438	5,554	4,167	19,597	18,913	37,295	1,912	88.6	43.6
White, total									
All ages	3,132,501	197,659	460,112	960,003	674,961	794,890	44,876	78.7	25.7
Under 15 years	4,739	3,545	987	-	-	-	207	-	-
15-19 years	337,888	32,885	172,330	110,533	16,037	-	6,103	38.1	-
15 years	14,193	4,638	9,130	-	-	-	425	-	-
16 years	34,649	5,229	27,739	900	-	-	781	2.7	-
17 years	62,782	6,128	45,951	9,266	228	-	1,209	15.4	-
18 years	96,254	7,480	45,911	38,600	2,634	-	1,629	43.6	-
19 years	130,010	9,410	43,599	61,767	13,175	-	2,059	58.6	-
20-24 years	748,371	56,175	150,646	322,029	167,513	40,392	11,016	72.0	5.6
25-29 years	873,654	50,482	79,784	260,246	227,565	244,155	11,422	84.9	28.3
30-34 years	739,948	32,814	37,998	172,385	168,819	318,484	9,448	90.3	43.6
35-39 years	356,959	17,057	15,441	79,792	79,861	159,468	5,340	90.8	45.4
40 years and over	70,942	4,701	2,926	15,018	15,166	31,791	1,340	89.0	45.7
White, non-Hispanic									
All ages	2,346,450	40,289	252,023	733,181	568,737	730,628	21,592	87.4	31.4
Under 15 years	2,048	1,572	402	-	-	-	74	-	-
15-19 years	212,923	11,478	106,084	80,611	12,138	-	2,612	44.1	-
15 years	6,963	2,158	4,637	-	-	-	168	-	-
16 years	18,886	2,203	15,782	581	-	-	320	3.1	-
17 years	37,671	2,187	28,727	6,103	164	-	490	16.9	-
18 years	62,282	2,378	29,366	27,933	1,888	-	717	48.4	-
19 years	87,121	2,552	27,572	45,994	10,086	-	917	65.1	-
20-24 years	514,386	11,442	85,309	242,105	135,206	35,588	4,736	81.0	7.0
25-29 years	663,569	7,853	35,826	198,206	192,829	223,320	5,535	93.4	33.9
30-34 years	600,830	4,683	15,590	135,095	145,638	294,794	5,030	96.6	49.5
35-39 years	294,590	2,513	7,382	64,910	69,523	147,352	2,910	96.6	50.5
40 years and over	58,104	748	1,430	12,254	13,403	29,574	695	96.2	51.5
Black, total									
All ages	605,970	15,345	139,104	234,181	137,265	67,430	12,645	74.0	11.4
Under 15 years	3,977	3,045	790	-	-	-	142	-	-
15-19 years	121,166	5,165	65,962	40,999	6,578	-	2,462	40.1	-
15 years	7,865	2,135	5,475	-	-	-	255	-	-
16 years	14,942	1,148	13,125	345	-	-	324	2.4	-
17 years	23,112	670	18,190	3,701	52	-	499	16.6	-
18 years	32,948	624	15,581	15,011	1,124	-	608	49.9	-
19 years	42,299	588	13,591	21,942	5,402	-	776	65.9	-
20-24 years	193,211	2,477	42,357	90,316	46,805	7,859	3,397	76.4	4.1
25-29 years	138,868	1,927	16,697	53,325	41,746	22,426	2,747	86.3	16.5
30-34 years	91,486	1,448	8,055	31,233	26,580	21,971	2,199	89.4	24.6
35-39 years	47,277	946	4,332	15,186	13,005	12,456	1,352	88.5	27.1
40 years and over	9,985	337	911	3,122	2,551	2,718	346	87.1	28.2

See footnotes at end of table

Table 21. Live births by educational attainment, and percent of mothers completing 12 years or more and 16 years or more of school, by age and race of mother: United States, 1999 --Con.

Age and race of mother	Total	Years of school completed by mother						Percent 12 years or more	Percent 16 years or more
		0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not Stated		
Black, non-Hispanic									
All ages	588,981	14,069	135,306	228,332	133,984	65,779	11,511	74.1	11.4
Under 15 years	3,890	2,985	768	-	-	-	137	-	-
15-19 years	118,285	4,990	64,416	40,185	6,416	-	2,278	40.2	-
15 years	7,698	2,099	5,355	-	-	-	244	-	-
16 years	14,573	1,115	12,822	334	-	-	302	2.3	-
17 years	22,580	641	17,804	3,612	51	-	472	16.6	-
18 years	32,155	590	15,223	14,703	1,075	-	564	49.9	-
19 years	41,279	545	13,212	21,536	5,290	-	696	66.1	-
20-24 years	188,247	2,178	41,254	88,312	45,678	7,685	3,140	76.5	4.2
25-29 years	134,784	1,624	16,086	51,875	40,794	21,920	2,485	86.6	16.6
30-34 years	88,403	1,214	7,715	30,240	25,884	21,387	1,963	89.7	24.7
35-39 years	45,746	791	4,183	14,697	12,724	12,145	1,206	88.8	27.3
40 years and over	9,626	287	884	3,023	2,488	2,642	302	87.4	28.3
Hispanic [2]									
All ages	764,339	158,351	208,350	223,122	102,507	55,076	16,933	50.9	7.4
Under 15 years	2,725	2,009	595	-	-	-	121	-	-
15-19 years	124,677	21,471	66,410	29,894	3,952	-	2,950	27.8	-
15 years	7,288	2,488	4,563	-	-	-	237	-	-
16 years	15,828	3,041	12,068	322	-	-	397	2.1	-
17 years	25,113	3,941	17,294	3,199	65	-	614	13.3	-
18 years	33,806	5,115	16,470	10,692	780	-	749	34.7	-
19 years	42,642	6,886	16,015	15,681	3,107	-	953	45.1	-
20-24 years	231,475	44,992	65,256	78,955	32,008	5,189	5,075	51.3	2.3
25-29 years	203,985	42,908	44,035	60,819	33,421	18,418	4,384	56.4	9.2
30-34 years	131,369	28,317	22,464	36,321	21,855	19,637	2,775	60.5	15.3
35-39 years	58,146	14,664	8,102	14,437	9,623	9,989	1,331	59.9	17.6
40 years and over	11,962	3,990	1,488	2,696	1,648	1,843	297	53.0	15.8

- Quantity zero.
1 Includes races other than white and black.
2 Includes all persons of Hispanic origin of any race.

Table 22. Number of live births and percent distribution by weight gain of mother during pregnancy and median weight gain, according to period of gestation, race and Hispanic origin of mother: Total of 49 reporting States and the District of Columbia, 1999

Period of gestation [1] and race and Hispanic origin of mother	All births	Weight gain during pregnancy									Median weight gain in pounds
		Less than 16 pounds	16-20 pounds	21-25 pounds	26-30 pounds	31-35 pounds	36-40 pounds	41-45 pounds	46 pounds or more	Not stated	
	Number										
All gestation periods [2]											
All races [3]	3,440,909	372,648	338,589	437,139	569,758	440,134	405,150	210,134	379,995	287,362	...
White, total	2,710,960	270,242	255,710	346,633	458,542	363,024	330,742	172,455	303,819	209,793	...
White, non-Hispanic	2,174,114	207,934	196,435	279,269	376,403	304,751	277,399	145,874	256,676	129,373	...
Black, total	570,567	86,756	65,658	68,028	83,552	56,959	57,211	29,589	63,748	59,066	...
Black, non-Hispanic	554,731	84,865	64,068	66,175	81,151	55,203	55,439	28,667	61,876	57,287	...
Hispanic [4]	514,975	60,504	57,889	65,119	78,687	55,720	51,051	25,475	45,344	75,186	...
Under 37 weeks											
All races [3]	410,507	65,992	49,643	52,953	59,966	41,302	37,517	19,307	38,516	45,311	...
White, total	292,556	41,989	33,878	38,728	44,137	31,735	28,422	14,949	29,166	29,552	...
White, non-Hispanic	230,221	31,673	25,968	31,015	35,788	26,280	23,398	12,541	24,681	18,877	...
Black, total	100,218	21,345	13,519	11,782	13,073	7,820	7,612	3,636	8,186	13,245	...
Black, non-Hispanic	98,165	20,990	13,263	11,527	12,786	7,654	7,437	3,561	8,021	12,926	...
Hispanic [4]	60,691	10,153	7,810	7,564	8,153	5,280	4,863	2,328	4,358	10,182	...
37-39 weeks											
All races [3]	1,662,072	174,748	166,164	219,124	284,736	218,076	196,106	100,038	174,161	128,919	...
White, total	1,313,147	128,635	126,221	173,981	229,337	179,468	159,863	81,889	138,810	94,943	...
White, non-Hispanic	1,057,509	99,663	97,383	140,566	188,780	151,236	134,217	69,420	117,332	58,912	...
Black, total	268,872	38,516	31,067	33,367	40,874	28,188	27,767	14,191	29,548	25,354	...
Black, non-Hispanic	261,595	37,664	30,301	32,473	39,757	27,352	26,940	13,767	28,721	24,620	...
Hispanic [4]	245,487	28,163	28,144	32,308	38,817	27,045	24,588	11,960	20,768	33,694	...
40 weeks and over											
All races [3]	1,354,859	130,719	122,117	164,195	224,142	180,121	170,934	90,517	166,743	105,371	...
White, total	1,095,471	98,908	95,134	133,286	184,373	151,312	142,003	75,406	135,409	79,640	...
White, non-Hispanic	880,153	76,191	72,762	107,220	151,363	126,898	119,464	63,766	114,378	48,111	...
Black, total	199,168	26,485	20,935	22,734	29,468	20,880	21,746	11,727	25,919	19,274	...
Black, non-Hispanic	192,842	25,836	20,367	22,033	28,474	20,129	20,981	11,305	25,041	18,676	...
Hispanic [4]	205,967	21,985	21,785	25,081	31,510	23,235	21,481	11,126	20,094	29,670	...
	Percent distribution										
All gestation periods [2]											
All races [3]	100.0	11.8	10.7	13.9	18.1	14.0	12.8	6.7	12.0	...	30.5
White, total	100.0	10.8	10.2	13.9	18.3	14.5	13.2	6.9	12.1	...	30.7
White, non-Hispanic	100.0	10.2	9.6	13.7	18.4	14.9	13.6	7.1	12.6	...	30.8
Black, total	100.0	17.0	12.8	13.3	16.3	11.1	11.2	5.8	12.5	...	30.0
Black, non-Hispanic	100.0	17.1	12.9	13.3	16.3	11.1	11.1	5.8	12.4	...	30.0
Hispanic [4]	100.0	13.8	13.2	14.8	17.9	12.7	11.6	5.8	10.3	...	29.8
Under 37 weeks											
All races [3]	100.0	18.1	13.6	14.5	16.4	11.3	10.3	5.3	10.5	...	27.9
White, total	100.0	16.0	12.9	14.7	16.8	12.1	10.8	5.7	11.1	...	28.9
White, non-Hispanic	100.0	15.0	12.3	14.7	16.9	12.4	11.1	5.9	11.7	...	30.0
Black, total	100.0	24.5	15.5	13.5	15.0	9.0	8.8	4.2	9.4	...	25.4
Black, non-Hispanic	100.0	24.6	15.6	13.5	15.0	9.0	8.7	4.2	9.4	...	25.4
Hispanic [4]	100.0	20.1	15.5	15.0	16.1	10.5	9.6	4.6	8.6	...	25.9
37-39 weeks											
All races [3]	100.0	11.4	10.8	14.3	18.6	14.2	12.8	6.5	11.4	...	30.5
White, total	100.0	10.6	10.4	14.3	18.8	14.7	13.1	6.7	11.4	...	30.6
White, non-Hispanic	100.0	10.0	9.8	14.1	18.9	15.1	13.4	7.0	11.7	...	30.7
Black, total	100.0	15.8	12.8	13.7	16.8	11.6	11.4	5.8	12.1	...	30.1
Black, non-Hispanic	100.0	15.9	12.8	13.7	16.8	11.5	11.4	5.8	12.1	...	30.1
Hispanic [4]	100.0	13.3	13.3	15.3	18.3	12.8	11.6	5.6	9.8	...	29.6
40 weeks and over											
All races [3]	100.0	10.5	9.8	13.1	17.9	14.4	13.7	7.2	13.3	...	30.9
White, total	100.0	9.7	9.4	13.1	18.1	14.9	14.0	7.4	13.3	...	31.0
White, non-Hispanic	100.0	9.2	8.7	12.9	18.2	15.3	14.4	7.7	13.7	...	31.6
Black, total	100.0	14.7	11.6	12.6	16.4	11.6	12.1	6.5	14.4	...	30.4
Black, non-Hispanic	100.0	14.8	11.7	12.7	16.3	11.6	12.0	6.5	14.4	...	30.4
Hispanic [4]	100.0	12.5	12.4	14.2	17.9	13.2	12.2	6.3	11.4	...	30.3

... Category not applicable.
1 Expressed in completed weeks.
2 Includes births with period of gestation not stated.
3 Includes races other than white and black and origin not stated.
4 Includes all persons of Hispanic origin of any race.

NOTE: Excludes data for California, which did not require reporting of weight gain during pregnancy.

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Table 23. Percent low birthweight by weight gain of mother during pregnancy, period of gestation, and race and Hispanic origin of mother: Total of 49 reporting States and the District of Columbia, 1999

[Low birthweight is defined as weight of less than 2,500 grams (5 lb 8 oz)]

Period of gestation [1] and race and Hispanic origin of mother	Total	Weight gain during pregnancy								
		Less than 16 pounds	16-20 pounds	21-25 pounds	26-30 pounds	31-35 pounds	36-40 pounds	41-45 pounds	46 pounds or more	Not stated
All gestation periods [2]										
All races [3]	7.8	13.9	10.6	8.0	6.4	5.4	5.2	5.2	5.5	11.7
White, total	6.7	11.7	9.2	7.0	5.6	4.9	4.7	4.8	5.1	9.9
White, non-Hispanic	6.7	11.8	9.5	7.1	5.6	4.9	4.7	4.8	5.2	10.6
Black, total	13.2	21.1	16.4	12.9	10.9	9.2	8.4	7.9	7.6	18.8
Black, non-Hispanic	13.3	21.2	16.5	13.1	11.0	9.3	8.5	8.0	7.7	18.9
Hispanic, total [4]	6.8	11.3	8.3	6.6	5.5	4.8	4.6	4.4	4.5	8.6
Mexican [4]	6.3	10.2	7.3	6.0	5.0	4.4	4.3	4.1	4.1	7.7
Puerto Rican [4]	9.4	16.0	12.1	9.7	8.3	6.5	6.3	5.5	5.6	15.1
Cuban [4]	6.8	12.0	10.8	7.7	6.3	5.9	4.5	4.1	4.7	14.8
Central and South American [4]	6.4	11.6	8.4	6.1	5.2	4.7	4.5	4.5	4.5	8.2
Other and unknown Hispanic [4]	7.8	13.8	10.7	7.6	6.1	5.5	4.8	4.4	4.8	11.8
Under 37 weeks										
All races [3]	43.9	56.7	48.9	42.5	38.2	36.0	35.4	36.4	36.0	53.0
White, total	41.7	53.9	46.9	40.8	36.5	34.9	34.8	35.5	35.9	50.1
White, non-Hispanic	42.9	55.9	48.9	42.3	37.5	36.0	36.0	36.7	36.8	54.3
Black, total	50.8	62.7	54.5	48.6	44.2	40.6	38.9	40.1	37.1	60.5
Black, non-Hispanic	50.9	62.8	54.6	48.8	44.3	40.8	38.9	40.4	37.2	60.7
Hispanic [4]	36.8	47.7	40.1	34.6	32.2	29.4	29.1	28.8	29.3	41.5
37-39 weeks										
All races [3]	4.1	6.3	5.4	4.3	3.7	3.2	3.1	3.1	3.2	5.0
White, total	3.5	5.3	4.7	3.8	3.2	2.8	2.7	2.7	2.8	4.1
White, non-Hispanic	3.5	5.3	4.7	3.8	3.2	2.7	2.7	2.7	2.8	4.0
Black, total	6.8	9.6	8.3	7.0	6.2	5.6	5.0	4.9	4.7	8.3
Black, non-Hispanic	6.8	9.7	8.4	7.0	6.2	5.6	5.1	4.9	4.7	8.3
Hispanic [4]	3.8	5.3	4.5	3.9	3.4	3.2	3.0	2.9	2.8	4.3
40 weeks and over										
All races [3]	1.5	2.6	2.2	1.7	1.3	1.1	1.0	1.0	0.9	2.1
White, total	1.2	2.1	1.9	1.4	1.1	1.0	0.8	0.8	0.8	1.7
White, non-Hispanic	1.2	2.1	1.9	1.4	1.1	0.9	0.8	0.8	0.8	1.5
Black, total	2.9	4.6	3.7	3.2	2.7	2.3	2.0	1.6	1.7	4.0
Black, non-Hispanic	3.0	4.6	3.8	3.2	2.7	2.4	2.1	1.7	1.7	4.0
Hispanic [4]	1.5	2.2	1.7	1.6	1.3	1.1	0.9	0.8	1.0	2.0

[1] Expressed in completed weeks.
[2] Includes births with period of gestation not stated.
[3] Includes races other than white and black and origin not stated.
[4] Includes all persons of Hispanic origin of any race.

NOTE: Excludes data for California, which did not require reporting of weight gain during pregnancy.

Table 24. Percent of births with selected medical or health characteristics, by detailed race of mother, by place of birth of mother: United States, 1999

Characteristic	All races	White	Black	American Indian [1]	Asian or Pacific Islander				
					Total	Chinese	Japanese	Hawaiian	Filipino	Other
All Births										
Mother										
Prenatal care beginning in the first trimester	83.2	85.1	74.1	69.5	83.7	88.5	90.7	79.6	84.2	81.8
Late or no prenatal care	3.8	3.2	6.6	8.2	3.5	2.0	2.1	4.0	2.8	4.1
Smoker [2]	12.6	13.6	9.3	20.2	2.9	0.5	4.5	14.7	3.3	2.3
Drinker [3]	1.0	1.0	1.2	3.5	0.3	0.2	1.0	0.8	0.2	0.3
Weight gain of less than 16 lbs [4]	11.8	10.8	17.0	15.9	9.7	6.5	10.8	9.6	8.3	10.6
Median weight gain [4]	30.5	30.7	30.0	30.1	30.1	30.4	26.3	30.9	30.5	30.0
Cesarean delivery rate	22.0	21.9	23.2	18.9	20.2	20.3	16.5	14.3	23.6	19.8
Infant										
Preterm births [5]	11.8	10.7	17.5	12.9	10.4	7.6	9.3	12.3	12.4	10.7
Birthweight										
Very low birthweight [6]	1.5	1.2	3.1	1.3	1.1	0.7	0.9	1.4	1.4	1.1
Low birthweight [7]	7.6	6.6	13.1	7.1	7.4	5.2	7.9	7.7	8.3	7.8
4,000 grams or more [8]	9.9	11.0	5.4	12.2	5.8	6.7	4.8	8.5	6.1	5.5
5-minute Apgar score of less than 7 [9]	1.4	1.2	2.4	1.5	1.0	0.6	1.2	2.0	1.1	1.0
Births to mothers born in the 50 States and D.C.										
Mother										
Prenatal care beginning in the first trimester	84.7	87.2	73.9	69.5	82.5	91.3	92.6	79.8	82.3	78.7
Late or no prenatal care	3.3	2.5	6.6	8.2	3.4	1.5	1.6	3.8	3.2	4.4
Smoker [2]	14.6	15.5	10.3	20.9	9.4	3.4	6.3	14.8	7.9	8.4
Drinker [3]	1.1	1.0	1.3	3.6	0.7	*	*	0.8	*	0.8
Weight gain of less than 16 lbs [4]	11.7	10.4	17.3	16.0	8.7	7.2	10.1	9.5	8.1	8.3
Median weight gain [4]	30.6	30.8	30.0	30.1	30.6	30.4	27.9	30.9	30.8	30.8
Cesarean delivery rate	22.1	22.1	22.9	18.9	16.9	17.2	18.4	14.4	17.5	17.5
Infant										
Preterm births [5]	12.0	10.7	17.9	12.8	11.7	9.7	10.6	12.3	12.7	11.8
Birthweight										
Very low birthweight [6]	1.5	1.2	3.2	1.3	1.3	0.9	0.9	1.4	1.6	1.3
Low birthweight [7]	7.9	6.7	13.5	7.1	8.2	7.0	8.2	7.7	8.9	8.4
4,000 grams or more [8]	10.2	11.2	5.0	12.4	7.1	6.7	5.9	8.5	6.0	7.5
5-minute Apgar score of less than 7 [9]	1.5	1.2	2.5	1.5	1.5	*	1.5	2.0	1.3	1.4
Births to mothers born outside the 50 Sates and D.C.										
Mother										
Prenatal care beginning in the first trimester	77.1	75.5	76.0	70.0	83.9	88.3	89.4	71.0	84.7	82.2
Late or no prenatal care	5.8	6.3	6.6	9.2	3.5	2.1	2.5	*	2.7	4.1
Smoker [2]	2.3	2.7	1.5	4.8	1.5	0.3	3.2	*	2.1	1.6
Drinker [3]	0.4	0.5	0.4	*	0.2	0.1	1.4	*	0.2	0.2
Weight gain of less than 16 lbs [4]	12.6	13.1	13.8	13.3	9.9	6.4	11.2	*	8.3	10.9
Median weight gain [4]	29.7	29.5	30.0	29.4	30.0	30.4	25.8	30.4	30.4	29.5
Cesarean delivery rate	21.4	21.0	25.5	19.4	20.8	20.7	15.2	*	25.1	20.1
Infant										
Preterm births [5]	10.8	10.5	13.9	13.3	10.2	7.3	8.4	*	12.3	10.5
Birthweight										
Very low birthweight [6]	1.1	1.0	2.4	1.0	1.0	0.6	0.8	*	1.4	1.0
Low birthweight [7]	6.4	5.8	9.6	7.9	7.3	5.0	7.8	*	8.1	7.7
4,000 grams or more [8]	9.1	10.0	8.6	7.2	5.6	6.7	4.1	*	6.1	5.2
5-minute Apgar score of less than 7 [9]	1.1	1.0	1.8	*	0.9	0.6	1.0	*	1.1	1.0

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Includes births to Aleuts and Eskimos.
2 Excludes data for California and South Dakota, which did not report tobacco use on the birth certificate.
3 Excludes data for California and South Dakota, which did not report alcohol use on the birth certificate.
4 Excludes data for California, which did not report weight gain on the birth certificate. Median weight shown in pounds.
5 Born prior to 37 completed weeks of gestation.
6 Birthweight of less than 1,500 grams (3 lb 4 oz).
7 Birthweight of less than 2,500 grams (5 lb 8 oz).
8 Equivalent to 8 lb 14 oz.
9 Excludes data for California and Texas, which did not report 5-minute Apgar score on the birth certificate.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 25. Percent of births with selected medical or health characteristics, by Hispanic origin of mother and by race for mothers of non-Hispanic origin and by place of birth of mother: United States, 1999

Characteristic	Origin of mother								
		Hispanic					Non-Hispanic		
	All origins [1]	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total [2]	White	Black
All Births Mother										
Prenatal care beginning in the first trimester	83.2	74.4	73.1	77.7	91.4	77.6	74.8	85.3	88.4	74.1
Late or no prenatal care	3.8	6.3	6.7	5.0	1.4	5.2	6.3	3.2	2.3	6.6
Smoker [3]	12.6	3.7	2.6	10.5	3.3	1.4	7.7	14.1	15.9	9.4
Drinker [4]	1.0	0.6	0.5	0.8	0.3	0.3	1.3	1.1	1.0	1.2
Weight gain of less than 16 lbs [5]	11.8	13.8	15.0	12.8	7.1	12.0	12.0	11.5	10.2	17.1
Median weight gain [5]	30.5	29.8	28.5	30.5	32.3	30.2	30.3	30.6	30.8	30.0
Cesarean delivery rate	22.0	21.2	20.6	21.5	33.2	23.1	20.5	22.2	22.1	23.2
Infant										
Preterm births [6]	11.8	11.4	11.1	13.7	11.5	11.4	11.9	11.9	10.5	17.6
Birthweight										
Very low birthweight [7]	1.5	1.1	1.0	1.9	1.5	1.1	1.3	1.5	1.2	3.2
Low birthweight [8]	7.6	6.4	5.9	9.3	6.8	6.4	7.6	7.9	6.6	13.2
4,000 grams or more [9]	9.9	9.0	9.4	6.9	9.6	9.1	7.6	10.1	11.6	5.3
5-minute Apgar score of less than 7 [10]	1.4	1.1	1.2	1.3	0.7	0.9	1.1	1.5	1.2	2.4
Births to mothers born in the 50 States and D.C. Mother										
Prenatal care beginning in the first trimester	84.7	77.0	76.6	77.6	91.2	82.4	75.1	85.6	88.5	73.9
Late or no prenatal care	3.3	5.0	5.0	5.0	1.5	3.4	6.1	3.1	2.2	6.6
Smoker [3]	14.6	7.0	5.2	11.9	4.7	4.8	9.7	15.2	16.4	10.2
Drinker [4]	1.1	1.0	0.9	0.9	0.5	0.7	1.6	1.1	1.0	1.3
Weight gain of less than 16 lbs [5]	11.7	12.6	13.2	12.1	7.4	9.4	12.3	11.6	10.2	17.4
Median weight gain [5]	30.6	29.8	28.5	30.5	32.3	30.2	30.3	30.6	30.8	30.0
Cesarean delivery rate	22.1	21.2	21.1	21.2	28.3	21.4	20.1	22.2	22.2	22.9
Infant										
Preterm births [6]	12.0	12.3	12.1	13.8	11.1	11.1	12.4	12.0	10.6	18.0
Birthweight										
Very low birthweight [7]	1.5	1.3	1.2	1.9	1.8	1.5	1.4	1.5	1.2	3.2
Low birthweight [8]	7.9	7.2	6.7	9.4	6.8	7.1	8.2	8.0	6.7	13.6
4,000 grams or more [9]	10.2	8.1	8.4	7.1	8.7	8.7	7.1	10.4	11.6	5.0
5-minute Apgar score of less than 7 [10]	1.5	1.2	1.2	1.3	0.6	1.1	1.2	1.5	1.2	2.5
Births to mothers born outside the 50 States and D.C. Mother										
Prenatal care beginning in the first trimester	77.1	72.8	70.8	78.0	91.6	77.1	74.8	83.2	85.5	76.3
Late or no prenatal care	5.8	7.1	7.8	4.9	1.3	5.4	6.4	4.0	3.6	6.5
Smoker [3]	2.3	1.5	0.9	7.8	2.4	1.1	2.1	3.3	6.2	1.4
Drinker [4]	0.4	0.3	0.3	0.8	*	0.3	0.4	0.6	1.0	0.3
Weight gain of less than 16 lbs [5]	12.6	14.6	16.3	14.0	6.8	12.3	11.3	10.3	8.7	14.2
Median weight gain [5]	29.7	28.3	26.6	30.2	32.1	30.1	30.2	30.3	30.7	29.7
Cesarean delivery rate	21.4	21.2	20.2	22.1	36.6	23.3	22.0	21.6	20.7	25.4
Infant										
Preterm births [6]	10.8	10.9	10.5	13.5	11.7	11.5	10.1	10.6	9.3	14.2
Birthweight										
Very low birthweight [7]	1.1	1.0	0.9	1.7	1.3	1.1	1.0	1.3	1.0	2.6
Low birthweight [8]	6.4	5.8	5.4	9.1	6.8	6.3	5.5	7.3	6.0	9.9
4,000 grams or more [9]	9.1	9.7	10.0	6.6	10.3	9.2	9.0	8.3	11.4	8.5
5-minute Apgar score of less than 7 [10]	1.1	1.1	1.2	1.3	0.7	0.9	0.9	1.1	0.9	1.9

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.
1 Includes origin not stated.
2 Includes races other than white and black.
3 Excludes data for California and South Dakota, which did not report tobacco use on the birth certificate.
4 Excludes data for California and South Dakota, which did not report alcohol use on the birth certificate.
5 Excludes data for California, which did not report weight gain on the birth certificate. Median weight gain shown in pounds.
6 Born prior to 37 completed weeks of gestation.
7 Birthweight of less than 1,500 grams (3 lb 4 oz).
8 Birthweight of less than 2,500 grams (5 lb 8 oz).
9 Equivalent to 8 lb 14 oz.
10 Excludes data for California and Texas, which did not report 5-minute Apgar score on the birth certificate.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 26. Live births to mothers with selected medical risk factors and rates by age of mother, by race of mother: United States, 1999

[Rates are number of live births with specified medical risk factor per 1,000 live births in specified group]

Medical risk factor and race of mother	All births [1]	Medical risk factor reported	Age of mother							Not stated [2]
			All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
All races [3]										
Anemia	3,959,417	90,322	23.2	33.1	28.3	20.9	18.0	18.0	18.2	63,752
Cardiac disease	3,959,417	20,189	5.2	2.8	3.5	5.0	6.7	8.0	9.7	63,752
Acute or chronic lung disease	3,959,417	43,117	11.1	13.8	12.0	10.2	9.9	10.2	12.0	63,752
Diabetes	3,959,417	106,413	27.3	8.3	16.3	26.9	36.1	49.0	64.8	63,752
Genital herpes [4]	3,610,172	33,636	9.5	6.3	8.2	9.1	11.2	12.4	13.2	61,402
Hydramnios/Oligohydramnios	3,959,417	52,704	13.5	14.7	13.8	12.9	12.7	14.1	17.5	63,752
Hemoglobinopathy	3,959,417	3,165	0.8	1.0	1.0	0.7	0.7	0.7	0.9	63,752
Hypertension, chronic	3,959,417	27,912	7.2	2.5	4.3	6.5	8.7	14.0	24.5	63,752
Hypertension, pregnancy-associated	3,959,417	148,837	38.2	43.3	38.4	37.8	34.9	38.1	47.7	63,752
Eclampsia	3,959,417	11,993	3.1	4.4	3.2	2.8	2.6	2.9	4.0	63,752
Incompetent cervix	3,959,417	11,344	2.9	1.3	2.1	2.8	3.7	4.7	5.0	63,752
Previous infant 4000+ grams	3,959,417	42,610	10.9	1.3	6.2	11.7	15.6	18.9	21.5	63,752
Previous preterm or small-for-gestational-age infant	3,959,417	47,311	12.1	4.9	12.2	12.7	13.2	15.6	16.2	63,752
Renal disease	3,959,417	11,038	2.8	2.8	3.1	2.9	2.7	2.5	2.4	63,752
Rh sensitization [5]	3,920,635	25,448	6.6	5.5	6.1	6.9	7.1	7.3	7.0	65,468
Uterine bleeding [4]	3,610,172	22,332	6.3	4.4	5.5	6.3	7.1	7.7	9.3	61,402
White										
Anemia	3,132,501	62,826	20.4	29.3	24.3	18.7	16.5	16.5	16.4	48,976
Cardiac disease	3,132,501	17,004	5.5	2.8	3.6	5.2	7.2	8.5	10.4	48,976
Acute or chronic lung disease	3,132,501	32,523	10.5	12.5	11.1	9.9	9.8	10.2	12.1	48,976
Diabetes	3,132,501	81,524	26.4	8.5	16.2	25.9	33.5	45.3	59.6	48,976
Genital herpes [4]	2,834,420	26,317	9.4	5.5	7.3	8.7	11.7	13.4	14.7	47,006
Hydramnios/Oligohydramnios	3,132,501	39,850	12.9	14.1	13.2	12.3	12.2	13.4	16.8	48,976
Hemoglobinopathy	3,132,501	1,109	0.4	0.3	0.3	0.4	0.4	0.4	0.4	48,976
Hypertension, chronic	3,132,501	19,139	6.2	2.1	3.8	5.7	7.4	11.3	19.2	48,976
Hypertension, pregnancy-associated	3,132,501	119,203	38.7	42.8	39.5	39.0	35.2	37.8	46.8	48,976
Eclampsia	3,132,501	8,909	2.9	4.0	3.0	2.7	2.5	2.8	3.6	48,976
Incompetent cervix	3,132,501	7,860	2.5	1.2	1.7	2.4	3.2	4.3	4.8	48,976
Previous infant 4000+ grams	3,132,501	38,000	12.3	1.4	6.9	12.8	17.1	20.8	24.1	48,976
Previous preterm or small-for-gestational-age infant	3,132,501	36,306	11.8	4.6	11.5	12.1	12.9	15.2	15.9	48,976
Renal disease	3,132,501	9,338	3.0	3.2	3.3	3.1	2.9	2.6	2.5	48,976
Rh sensitization [5]	3,097,890	23,064	7.6	6.6	7.0	7.7	8.0	8.2	7.9	50,467
Uterine bleeding [4]	2,834,420	18,418	6.6	4.7	5.8	6.6	7.4	8.0	9.5	47,036
Black										
Anemia	605,970	22,134	37.0	41.6	41.8	33.7	30.0	29.7	28.4	7,075
Cardiac disease	605,970	2,508	4.2	2.7	3.6	4.4	5.4	7.0	6.7	7,075
Acute or chronic lung disease	605,970	9,101	15.2	17.7	16.1	14.1	12.8	13.0	14.1	7,075
Diabetes	605,970	15,326	25.6	7.2	15.3	28.6	44.2	60.3	77.7	7,075
Genital herpes [4]	565,873	6,334	11.3	8.5	12.0	13.3	12.1	9.8	8.6	6,825
Hydramnios/Oligohydramnios	605,970	10,126	16.9	16.6	16.0	16.7	17.2	19.8	24.3	7,075
Hemoglobinopathy	605,970	1,906	3.2	3.0	3.5	2.9	3.0	3.1	4.1	7,075
Hypertension, chronic	605,970	7,727	12.9	3.6	6.4	12.7	21.4	37.6	64.1	7,075
Hypertension, pregnancy-associated	605,970	24,229	40.5	45.0	36.5	37.2	41.8	47.9	59.4	7,075
Eclampsia	605,970	2,518	4.2	5.3	3.7	4.0	3.9	4.4	5.9	7,075
Incompetent cervix	605,970	3,060	5.1	1.7	3.9	6.1	8.5	9.2	7.3	7,075
Previous infant 4000+ grams	605,970	2,892	4.8	0.8	3.4	6.4	7.9	9.8	8.7	7,075
Previous preterm or small-for-gestational-age infant	605,970	8,895	14.9	5.9	15.0	18.2	18.0	20.6	20.5	7,075
Renal disease	605,970	1,299	2.2	1.9	2.5	2.1	1.9	2.3	2.1	7,075
Rh sensitization [5]	603,115	1,977	3.3	2.8	3.4	3.5	3.4	3.4	4.4	7,266
Uterine bleeding [4]	565,873	2,659	4.8	3.6	4.4	5.1	5.5	6.4	7.1	6,825

[1] Total number of births to residents of areas reporting specified medical risk factor.
[2] No response reported for the medical risk factor item.
[3] Includes races other than white and black.
[4] Texas does not report this risk factor.
[5] Kansas does not report this risk factor.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race, see Technical notes.

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Table 27. Number and rate of live births to mothers with selected medical risk factors, complications of labor, and obstetric procedures, by detailed race of mother: United States, 1999

[Rates are number of live births with specified risk factors, complications, or procedures per 1,000 live births in specified group]

Medical risk factor, complication, and obstetric procedure	All races	White	Black	American Indian [1]	Asian or Pacific Islander				
					Total	Chinese	Japanese	Hawaiian	Filipino	Other
	Number									
Medical risk factors										
Anemia	90,322	62,826	22,134	2,063	3,299	286	159	213	475	2,166
Diabetes	106,413	81,524	15,326	1,878	7,685	1,275	244	147	1,467	4,552
Hypertension, pregnancy-associated	148,837	119,203	24,229	1,877	3,528	347	174	205	893	1,909
Uterine bleeding [2]	22,332	18,418	2,659	303	952	137	66	51	163	535
Complications of labor and/or delivery										
Meconium,moderate/heavy	213,698	156,049	45,488	2,213	9,948	1,471	307	324	1,953	5,893
Premature rupture of membrane	100,130	75,850	18,460	1,492	4,328	633	255	168	745	2,527
Dysfunctional labor	105,795	84,394	15,292	1,393	4,716	877	214	153	779	2,693
Breech/Malpresentation	152,084	126,242	18,256	1,411	6,175	1,079	332	191	1,017	3,556
Cephalopelvic disproportion	71,604	58,220	8,644	640	4,100	661	162	88	847	2,342
Fetal distress [3]	140,756	105,319	28,085	1,414	5,938	880	194	129	997	3,738
Obstetric procedures										
Amniocentesis	103,874	87,511	9,296	669	6,398	1,862	614	161	929	2,832
Electronic fetal monitoring	3,296,037	2,614,055	508,057	32,248	141,677	22,609	6,529	4,213	23,533	84,793
Induction of labor	775,245	648,095	95,500	7,730	23,920	3,531	1,190	777	3,584	14,838
Ultrasound	2,579,276	2,081,638	362,419	23,781	111,438	19,116	5,333	3,022	18,569	65,398
Stimulation of labor	702,784	566,588	97,708	6,157	32,331	5,313	1,401	618	4,721	20,278
	Rate									
Medical risk factors										
Anemia	23.2	20.4	37.0	53.7	18.9	10.1	19.9	41.4	16.1	20.9
Diabetes	27.3	26.4	25.6	48.9	44.0	45.0	30.5	28.6	49.8	43.8
Hypertension, pregnancy-associated	38.2	38.7	40.5	48.8	20.2	12.2	21.7	39.9	30.3	18.4
Uterine bleeding [2]	6.3	6.6	4.8	8.1	5.8	5.1	8.5	10.0	5.8	5.5
Complications of labor and/or delivery										
Meconium,moderate/heavy	54.7	50.5	75.8	57.4	56.3	51.4	36.8	58.6	65.2	56.4
Premature rupture of membrane	25.6	24.5	30.8	38.7	24.5	22.1	30.6	30.4	24.9	24.2
Dysfunctional labor	27.1	27.3	25.5	36.2	26.7	30.7	25.7	27.7	26.0	25.8
Breech/Malpresentation	38.9	40.8	30.4	36.6	34.9	37.7	39.8	34.5	34.0	34.1
Cephalopelvic disproportion	18.3	18.8	14.4	16.6	23.2	23.1	19.4	15.9	28.3	22.4
Fetal distress [3]	39.6	37.7	50.2	37.5	35.7	32.2	23.9	23.6	34.6	38.6
Obstetric procedures										
Amniocentesis	26.5	28.2	15.5	17.3	36.1	65.1	73.7	29.2	31.0	27.0
Electronic fetal monitoring	841.5	843.4	844.6	833.9	799.9	789.9	783.7	763.5	786.0	809.8
Induction of labor	197.9	209.1	158.8	199.9	135.0	123.4	142.8	140.8	119.7	141.7
Ultrasound	658.5	671.6	602.5	614.9	629.2	667.9	640.1	547.7	620.2	624.6
Stimulation of labor	179.4	182.8	162.4	159.2	182.5	185.6	168.2	112.0	157.7	193.7

[1] Includes births to Aleuts and Eskimos.
[2] Texas does not report this risk factor.
[3] Texas does not report this complication.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 28. Number and rate of live births to mothers with selected medical risk factors, complications of labor, and obstetric procedures, by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1999

[Rates are number of live births with specified risk factors, complications or procedures per 1,000 live births in specified group]

Medical risk factor, complication, and obstetric procedure	All origins[1]	Origin of mother								
		Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total[2]	White	Black
	Number									
Medical risk factors										
Anemia	90,322	17,470	11,400	1,919	186	1,741	2,224	71,532	44,782	21,628
Diabetes	106,413	20,987	14,335	1,941	284	2,942	1,485	84,124	60,072	14,778
Hypertension, pregnancy-associated	148,837	20,950	14,235	1,685	406	2,831	1,793	126,284	97,489	23,653
Uterine bleeding[3]	22,332	2,640	1,671	327	39	417	186	19,247	15,467	2,594
Complications of labor and/or delivery										
Meconium, moderate/heavy	213,698	43,669	29,940	3,421	525	6,882	2,901	167,436	111,446	44,280
Premature rupture of membrane	100,130	13,783	8,410	1,607	259	2,048	1,459	84,514	60,932	18,002
Dysfunctional labor	105,795	16,514	9,800	1,774	527	2,768	1,645	87,489	66,851	14,734
Breech/Malpresentation	152,084	22,583	15,033	2,065	519	3,298	1,668	127,574	102,590	17,693
Cephalopelvic disproportion	71,604	10,430	7,353	860	170	1,422	625	60,345	47,334	8,448
Fetal distress[4]	140,756	19,253	12,045	2,211	332	3,266	1,399	119,834	85,269	27,441
Obstetric procedures										
Amniocentesis	103,874	9,462	4,623	1,217	348	2,266	1,008	92,426	76,596	8,971
Electronic fetal monitoring	3,296,037	600,947	416,444	49,007	11,777	82,217	41,502	2,658,739	1,997,493	493,948
Induction of labor	775,245	101,102	67,436	9,008	2,378	13,248	9,032	663,352	539,774	93,207
Ultrasound	2,579,276	427,558	292,042	36,947	7,684	58,793	32,092	2,121,236	1,639,197	351,940
Stimulation of labor	702,784	127,225	86,009	12,118	2,275	18,355	8,468	567,195	435,253	94,648
	Rate									
Medical risk factors										
Anemia	23.2	23.1	21.3	34.3	14.3	17.0	45.1	23.1	19.4	37.1
Diabetes	27.3	27.8	26.8	34.7	21.8	28.8	30.1	27.2	26.0	25.4
Hypertension, pregnancy-associated	38.2	27.7	26.6	30.1	31.2	27.7	36.4	40.8	42.2	40.6
Uterine bleeding[3]	6.3	4.4	4.2	6.0	3.1	4.4	4.6	6.6	7.1	4.8
Complications of labor and/or delivery										
Meconium, moderate/heavy	54.7	57.5	55.7	60.9	40.3	67.1	58.6	53.9	48.2	75.9
Premature rupture of membrane	25.6	18.2	15.6	28.6	19.9	20.0	29.5	27.2	26.3	30.8
Dysfunctional labor	27.1	21.8	18.2	31.6	40.4	27.0	33.2	28.2	28.9	25.2
Breech/Malpresentation	38.9	29.7	27.9	36.8	39.8	32.2	33.7	41.1	44.4	30.3
Cephalopelvic disproportion	18.3	13.7	13.7	15.3	13.0	13.9	12.6	19.4	20.5	14.5
Fetal distress[4]	39.6	32.0	30.3	40.1	26.0	34.5	34.2	41.2	39.3	50.5
Obstetric procedures										
Amniocentesis	26.5	12.4	8.6	21.6	26.6	22.1	20.3	29.7	33.0	15.3
Electronic fetal monitoring	841.5	790.6	773.4	870.9	901.7	800.1	836.2	854.4	861.2	844.7
Induction of labor	197.9	133.0	125.2	160.1	182.1	128.9	182.0	213.2	232.7	159.4
Ultrasound	658.5	562.5	542.4	656.6	588.3	572.1	646.6	681.7	706.7	601.8
Stimulation of labor	179.4	167.4	159.7	215.3	174.2	178.6	170.6	182.3	187.6	161.9

[1] Includes origin not stated.
[2] Includes races other than white and black.
[3] Texas does not report this risk factor.
[4] Texas does not report this complication.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 29. Number of live births by smoking status of mother, percent smokers, and percent distribution by average number of cigarettes smoked by mothers per day, according to age and race of mother: Total of 48 reporting States and the District of Columbia, 1999

Smoking status, smoking measure, and race of mother	Age of mother									
	All ages	Under 15 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
			Total	15-17 years	18-19 years					
	Number									
All races[1]										
Total	3,430,385	7,999	418,240	143,003	275,237	858,770	937,236	768,339	367,719	72,082
Smoker	426,036	616	74,805	21,895	52,910	141,480	101,656	64,877	35,842	6,760
Nonsmoker	2,957,167	7,254	337,491	119,147	218,344	705,380	822,983	693,115	326,770	64,174
Not stated	47,182	129	5,944	1,961	3,983	11,910	12,597	10,347	5,107	1,148
White										
Total	2,702,289	3,874	289,581	94,350	195,231	644,752	758,986	641,781	304,505	58,810
Smoker	363,374	481	64,461	18,662	45,799	121,320	87,498	54,881	29,383	5,350
Nonsmoker	2,301,012	3,317	220,745	74,292	146,453	514,211	661,218	578,166	270,833	52,522
Not stated	37,903	76	4,375	1,396	2,979	9,221	10,270	8,734	4,289	938
Black										
Total	570,478	3,853	115,514	43,951	71,563	182,883	130,504	84,909	43,654	9,161
Smoker	52,418	103	8,264	2,507	5,757	16,752	11,760	8,591	5,719	1,229
Nonsmoker	512,215	3,704	106,122	41,039	65,083	164,279	117,365	75,445	37,501	7,799
Not stated	5,845	46	1,128	405	723	1,852	1,379	873	434	133
	Percent									
Smoker[1]	12.6	7.8	18.1	15.5	19.5	16.7	11.0	8.6	9.9	9.5
White	13.6	12.7	22.6	20.1	23.8	19.1	11.7	8.7	9.8	9.2
Black	9.3	2.7	7.2	5.8	8.1	9.3	9.1	10.2	13.2	13.6
	Percent distribution[2]									
All races[1]										
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1-5 cigarettes	29.0	50.5	36.8	41.3	35.0	29.8	26.0	25.7	24.4	23.9
6-10 cigarettes	41.1	35.6	41.9	40.5	42.5	42.4	40.9	39.4	38.4	36.8
11-15 cigarettes	6.2	*	4.5	4.0	4.7	5.4	7.0	7.4	7.7	7.4
16-20 cigarettes	20.3	9.8	14.9	12.9	15.7	19.4	22.3	23.1	24.1	25.8
21-30 cigarettes	2.5	*	1.3	1.0	1.5	2.2	2.8	3.1	3.7	4.1
31-40 cigarettes	0.9	*	0.4	0.3	0.5	0.7	0.9	1.2	1.5	1.8
41 cigarettes or more	0.1	*	0.1	*	0.1	0.1	0.2	0.2	0.2	*
White										
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1-5 cigarettes	26.0	45.0	33.5	37.8	31.7	26.5	23.3	23.1	21.4	21.3
6-10 cigarettes	41.7	38.4	43.6	42.4	44.0	43.5	41.1	39.2	37.8	35.6
11-15 cigarettes	6.7	*	4.8	4.3	5.0	5.9	7.6	8.1	8.5	8.0
16-20 cigarettes	21.9	11.5	16.2	14.1	17.0	20.9	23.9	24.7	26.1	28.1
21-30 cigarettes	2.7	*	1.4	1.1	1.6	2.3	3.0	3.4	4.2	4.7
31-40 cigarettes	0.9	*	0.5	0.3	0.5	0.8	0.9	1.3	1.7	2.2
41 cigarettes or more	0.1	*	0.1	*	0.1	0.1	0.2	0.2	0.2	*
Black										
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1-5 cigarettes	46.8	70.3	59.0	63.2	57.2	51.0	42.6	40.0	38.4	34.0
6-10 cigarettes	37.3	25.3	31.1	28.4	32.2	35.6	39.5	40.4	40.9	41.2
11-15 cigarettes	3.0	*	2.2	2.3	2.2	2.3	3.4	3.8	3.8	5.1
16-20 cigarettes	11.2	*	6.8	5.3	7.4	9.6	12.7	13.5	14.8	16.7
21-30 cigarettes	1.0	*	0.6	*	0.7	0.9	1.0	1.4	1.2	2.0
31-40 cigarettes	0.5	*	0.3	*	*	0.4	0.7	0.8	0.6	*
41 cigarettes or more	0.1	*	*	*	*	*	*	*	*	*

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Includes races other than white and black.
2 Excludes data for Indiana and New York State (but includes New York City) which did not report average number of cigarettes smoked per day in standard categories.

NOTE: Excludes data for California and South Dakota, which did not require reporting of tobacco use during pregnancy. Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 30. Number of live births by smoking status of mother and percent of mothers who smoked cigarettes during pregnancy, by age and Hispanic origin of mother and by race for mothers of non-Hispanic origin: Total of 48 reporting States, and the District of Columbia, 1999

Origin of mother	Smoking status				Age of mother									
							15-19 years							
	Total births	Smoker	Non-smoker	Not stated	All ages	Under 15 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All origins [1]	3,430,385	426,036	2,957,167	47,182	12.6	7.8	18.1	15.5	19.5	16.7	11.0	8.6	9.9	9.5
Hispanic	514,796	19,058	489,930	5,808	3.7	4.3	4.6	4.3	4.9	4.1	3.1	3.1	3.6	3.9
Mexican	323,105	8,388	310,667	4,050	2.6	3.3	3.3	3.1	3.4	2.7	2.2	2.3	3.0	3.1
Puerto Rican	55,112	5,686	48,703	723	10.5	*	10.3	9.0	11.1	11.9	9.8	9.1	9.2	11.4
Cuban	12,399	406	11,952	41	3.3	*	5.8	*	6.0	4.2	2.5	2.6	3.3	*
Central and South American	78,563	1,124	76,959	480	1.4	*	1.8	1.5	1.9	1.6	1.2	1.3	1.6	1.7
Other and unknown Hispanic	45,617	3,454	41,649	514	7.7	9.0	8.7	7.6	9.4	8.6	6.7	6.5	6.9	6.1
Non-Hispanic [2]	2,871,003	400,678	2,432,865	37,460	14.1	8.9	21.7	19.0	23.0	19.6	12.3	9.2	10.6	10.2
White	2,165,609	339,724	1,796,892	28,993	15.9	20.8	30.1	28.7	30.7	23.9	13.5	9.5	10.6	9.9
Black	554,643	51,402	497,821	5,420	9.4	2.8	7.2	5.7	8.1	9.3	9.2	10.4	13.5	14.0

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
[1] Includes origin not stated.
[2] Includes races other than white and black.

NOTES: Excludes data for California and South Dakota, which did not require reporting of tobacco use during pregnancy. Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 31. Number of live births, percent of mothers who smoked cigarettes during pregnancy, and percent distribution of average number of cigarettes smoked by mothers per day, according to educational attainment and race and Hispanic origin of mother: Total of 48 reporting States, and the District of Columbia, 1999

Smoking measure, and race and Hispanic origin of mother	Total	Years of school completed by mother					
		0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not Stated
	All births						
All races[1]	3,430,385	159,931	529,765	1,101,150	753,833	829,961	55,745
White, total	2,702,289	138,200	377,250	836,155	595,963	715,892	38,829
White, non-Hispanic	2,165,609	38,719	238,431	681,211	521,578	665,337	20,333
Black, total	570,478	14,939	133,217	220,026	127,366	62,963	11,967
Black, non-Hispanic	554,643	13,681	129,633	214,581	124,396	61,414	10,938
Hispanic[2]	514,796	100,476	138,635	150,518	70,078	41,281	13,808
	Percent						
Smoker	12.6	11.0	25.6	16.7	9.4	2.1	12.3
White, total	13.6	11.2	29.2	19.1	10.4	2.2	12.9
White, non- Hispanic	15.9	34.0	42.4	22.4	11.3	2.3	18.9
Black, total	9.3	10.9	16.5	8.9	5.5	1.9	12.5
Black, non-Hispanic	9.4	11.4	16.7	9.0	5.5	1.9	12.6
Hispanic[2]	3.7	2.2	5.8	3.9	3.1	1.1	3.3
	Percent distribution[3]						
All races[1]							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	70.1	64.7	70.0	69.3	71.8	76.2	73.1
11-20 cigarettes	26.5	29.6	26.3	27.3	25.3	21.5	23.6
21 cigarettes or more	3.5	5.7	3.7	3.3	2.9	2.3	3.3
White, total							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	67.7	62.4	66.8	67.1	70.2	75.3	69.5
11-20 cigarettes	28.5	31.5	29.1	29.3	26.7	22.2	26.5
21 cigarettes or more	3.7	6.2	4.2	3.6	3.1	2.5	3.9
White, non-Hispanic							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	66.8	58.6	65.4	66.6	69.8	75.0	67.9
11-20 cigarettes	29.3	34.5	30.3	29.8	27.1	22.5	28.0
21 cigarettes or more	3.9	6.9	4.3	3.6	3.2	2.5	4.1
Black, total							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	84.1	82.0	83.9	84.5	83.9	84.8	83.4
11-20 cigarettes	14.2	15.3	14.2	14.0	14.6	14.2	14.8
21 cigarettes or more	1.7	2.7	2.0	1.5	1.5	*	1.8
Black, non-Hispanic							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	84.0	82.3	83.8	84.5	83.9	84.9	83.3
11-20 cigarettes	14.3	15.0	14.2	14.1	14.7	14.1	14.9
21 cigarettes or more	1.7	2.7	2.0	1.4	1.5	*	*
Hispanic[2]							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	84.3	84.8	85.0	83.9	82.5	84.6	83.8
11-20 cigarettes	14.0	13.1	13.3	14.5	16.4	14.1	14.0
21 cigarettes or more	1.6	2.1	1.7	1.6	1.1	*	*

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Excludes data for Indiana and New York State (but includes New York City) which did not report average number of cigarettes smoked per day in standard categories.

NOTE: Excludes data for California and South Dakota, which did not require reporting of tobacco use during pregnancy.

Table 32. Percent low birthweight by smoking status, age, and race and Hispanic origin of mother: Total of 48 reporting States, and the District of Columbia, 1999

[Low birthweight is defined as weight of less than 2,500 grams (5 lb 8 oz)]

Smoking status and race of mother	All ages	Age of mother								
		Under 15 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
			Total	15-17 years	18-19 years					
All races [1]										
Total	7.8	13.4	9.9	10.8	9.5	7.8	6.9	7.1	8.6	10.6
Smoker	12.1	15.7	11.6	12.4	11.3	10.6	11.5	13.2	16.7	19.3
Nonsmoker	7.2	13.2	9.6	10.5	9.0	7.3	6.3	6.6	7.7	9.7
Not stated	9.5	*	10.9	11.2	10.8	8.9	8.9	9.1	10.5	15.0
White, total										
Total	6.7	11.5	8.4	9.2	8.1	6.6	6.0	6.3	7.5	9.4
Smoker	10.8	15.1	10.9	11.6	10.6	9.8	10.2	11.4	14.4	16.4
Nonsmoker	6.1	11.1	7.7	8.5	7.2	5.8	5.4	5.8	6.7	8.6
Not stated	8.5	*	10.0	10.5	9.8	7.8	7.9	8.3	9.4	13.3
White, non-Hispanic										
Total	6.7	11.6	8.5	9.3	8.2	6.7	6.0	6.3	7.4	9.3
Smoker	10.8	15.7	10.8	11.6	10.5	9.8	10.2	11.2	14.3	16.3
Nonsmoker	5.9	10.5	7.5	8.3	7.1	5.7	5.4	5.7	6.6	8.5
Not stated	8.7	*	10.3	11.1	9.9	8.0	8.2	8.4	9.4	12.8
Black, total										
Total	13.2	15.5	13.8	14.3	13.5	12.3	12.3	13.6	16.1	18.3
Smoker	21.0	19.4	17.3	18.0	17.0	16.7	21.5	25.0	29.2	32.8
Nonsmoker	12.4	15.4	13.5	14.1	13.1	11.8	11.3	12.3	14.0	15.9
Not stated	16.4	*	15.1	13.9	15.8	14.6	16.4	17.6	21.8	24.2
Black, non-Hispanic										
Total	13.3	15.6	13.9	14.3	13.6	12.4	12.5	13.8	16.3	18.4
Smoker	21.1	19.4	17.4	18.0	17.1	16.7	21.6	25.1	29.4	32.9
Nonsmoker	12.5	15.4	13.6	14.1	13.3	11.9	11.5	12.4	14.2	15.9
Not stated	16.5	*	15.3	14.2	15.8	14.5	16.5	18.0	22.4	25.2
Hispanic [2]										
Total	6.8	11.5	8.3	9.1	7.8	6.4	5.9	6.6	8.1	10.1
Smoker	11.8	*	11.7	12.2	11.4	10.6	10.8	13.8	15.4	17.3
Nonsmoker	6.6	11.4	8.1	8.9	7.5	6.2	5.7	6.3	7.7	9.6
Not stated	8.3	*	9.5	9.4	9.5	7.7	7.4	7.8	9.8	15.4

* Figure does not meet standards of reliability or precision: based on fewer then 20 births in the numerator.
[1] Includes races other than white and black and origin not stated.
[2] Includes all persons of Hispanic origin of any race.

NOTE: Excludes data for California and South Dakota, which did not require reporting of tobacco use during pregnancy.

Table 33. Live births by month of pregnancy prenatal care began and percent of mothers beginning care in the first trimester and percent with late or no care, by age and race and Hispanic origin of mother: United States, 1999

Age and race and Hispanic origin of mother	All births	Month of pregnancy prenatal care began									
		1st trimester			2d trimester	Late or no care			Not stated	Percent	
		Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care		1st trimester	Late or no care
All races [1]	3,959,417	3,198,714	2,478,491	720,223	499,928	146,449	102,202	44,247	114,326	83.2	3.8
Under 15 years	9,054	4,098	2,521	1,577	3,177	1,375	976	399	404	47.4	15.9
15-19 years	476,050	317,423	215,687	101,736	110,496	32,445	23,289	9,156	15,686	69.0	7.0
15 years	22,896	12,503	7,799	4,704	7,032	2,461	1,759	702	900	56.8	11.2
16 years	51,516	30,843	19,875	10,968	14,376	4,448	3,169	1,279	1,849	62.1	9.0
17 years	89,176	57,875	38,403	19,472	21,866	6,463	4,619	1,844	2,972	67.1	7.5
18 years	133,988	90,749	62,010	28,739	30,318	8,663	6,296	2,367	4,258	70.0	6.7
19 years	178,474	125,453	87,600	37,853	36,904	10,410	7,446	2,964	5,707	72.6	6.0
20-24 years	981,929	742,928	548,641	194,287	161,807	47,135	33,674	13,461	30,059	78.0	5.0
25-29 years	1,078,252	908,407	720,738	187,669	110,020	31,244	21,795	9,449	28,581	86.5	3.0
30-34 years	892,400	778,770	632,449	146,321	69,471	20,316	13,580	6,736	23,843	89.7	2.3
35-39 years	434,294	374,640	301,515	73,125	35,940	11,121	7,093	4,028	12,593	88.8	2.6
40 years and over	87,438	72,448	56,940	15,508	9,017	2,813	1,795	1,018	3,160	86.0	3.3
White, total	3,132,501	2,597,095	2,030,014	567,081	357,303	98,770	71,262	27,508	79,333	85.1	3.2
Under 15 years	4,739	2,344	1,455	889	1,536	667	460	207	192	51.6	14.7
15-19 years	337,888	233,139	159,480	73,659	73,720	21,031	15,441	5,590	9,998	71.1	6.4
15 years	14,193	8,272	5,185	3,087	4,019	1,424	1,039	385	478	60.3	10.4
16 years	34,649	21,755	14,094	7,661	8,973	2,795	2,007	788	1,126	64.9	8.3
17 years	62,782	42,287	28,317	13,970	14,430	4,202	3,047	1,155	1,863	69.4	6.9
18 years	96,254	67,188	46,292	20,896	20,638	5,716	4,229	1,487	2,712	71.8	6.1
19 years	130,010	93,637	65,592	28,045	25,660	6,894	5,119	1,775	3,819	74.2	5.5
20-24 years	748,371	580,102	430,422	149,680	115,368	32,191	23,737	8,454	20,710	79.7	4.4
25-29 years	873,654	750,495	599,261	151,234	81,289	21,750	15,704	6,046	20,120	87.9	2.5
30-34 years	739,948	657,232	537,432	119,800	51,878	13,757	9,578	4,179	17,081	90.9	1.9
35-39 years	356,959	313,736	254,356	59,380	26,792	7,471	5,054	2,417	8,960	90.2	2.1
40 years and over	70,942	60,047	47,608	12,439	6,720	1,903	1,288	615	2,272	87.4	2.8
White, non-Hispanic	2,346,450	2,030,575	1,618,301	412,274	214,732	52,435	37,826	14,609	48,708	88.4	2.3
Under 15 years	2,048	1,048	647	401	650	287	207	80	63	52.8	14.5
15-19 years	212,923	155,365	107,232	48,133	42,109	10,380	7,787	2,593	5,069	74.7	5.0
15 years	6,963	4,226	2,681	1,545	1,867	661	499	162	209	62.6	9.8
16 years	18,886	12,524	8,132	4,392	4,559	1,295	953	342	508	68.1	7.0
17 years	37,671	26,935	18,050	8,885	7,934	1,936	1,438	498	866	73.2	5.3
18 years	62,282	45,777	31,848	13,929	12,139	2,955	2,225	730	1,411	75.2	4.9
19 years	87,121	65,903	46,521	19,382	15,610	3,533	2,672	861	2,075	77.5	4.2
20-24 years	514,386	418,400	315,581	102,819	68,207	16,197	12,145	4,052	11,582	83.2	3.2
25-29 years	663,569	591,763	481,682	110,081	48,003	11,396	8,160	3,236	12,407	90.9	1.8
30-34 years	600,830	548,259	454,830	93,429	32,887	8,093	5,556	2,537	11,591	93.0	1.4
35-39 years	294,590	265,223	217,717	47,506	18,220	4,820	3,151	1,669	6,327	92.0	1.7
40 years and over	58,104	50,517	40,612	9,905	4,656	1,262	820	442	1,669	89.5	2.2
Black, total	605,970	429,639	317,995	111,644	111,678	38,493	23,943	14,550	26,160	74.1	6.6
Under 15 years	3,977	1,627	999	628	1,515	645	467	178	190	43.0	17.0
15-19 years	121,166	74,359	49,905	24,454	31,877	9,913	6,666	3,247	5,017	64.0	8.5
15 years	7,865	3,838	2,376	1,462	2,713	932	639	293	382	51.3	12.5
16 years	14,942	8,097	5,176	2,921	4,744	1,440	995	445	661	56.7	10.1
17 years	23,112	13,756	8,971	4,785	6,412	1,962	1,340	622	982	62.2	8.9
18 years	32,948	20,756	13,942	6,814	8,343	2,518	1,731	787	1,331	65.6	8.0
19 years	42,299	27,912	19,440	8,472	9,665	3,061	1,961	1,100	1,661	68.7	7.5
20-24 years	193,211	134,743	98,269	36,474	38,446	12,434	8,020	4,414	7,588	72.6	6.7
25-29 years	138,868	105,399	81,116	24,283	20,436	7,144	4,305	2,839	5,889	79.3	5.4
30-34 years	91,486	70,654	54,884	15,770	11,528	4,876	2,717	2,159	4,428	81.2	5.6
35-39 years	47,277	35,731	27,450	8,281	6,300	2,793	1,422	1,371	2,453	79.7	6.2
40 years and over	9,985	7,126	5,372	1,754	1,576	688	346	342	595	75.9	7.3

See footnotes at end of table.

Table 33. Live births by month of pregnancy prenatal care began and percent of mothers beginning care in the first trimester and percent with late or no care, by age and race and Hispanic origin of mother: United States, 1999 --Con.

Age and race and Hispanic origin of mother	All births	Month of pregnancy prenatal care began									
		1st trimester			2d trimester	Late or no care			Not stated	Percent	
		Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care		1st trimester	Late or no care
Black, non-Hispanic	588,981	418,140	309,771	108,369	108,654	37,280	23,105	14,175	24,907	74.1	6.6
Under 15 years	3,890	1,593	981	612	1,484	627	455	172	186	43.0	16.9
15-19 years	118,285	72,658	48,777	23,881	31,177	9,636	6,487	3,149	4,814	64.0	8.5
15 years	7,698	3,754	2,322	1,432	2,664	912	626	286	368	51.2	12.4
16 years	14,573	7,895	5,048	2,847	4,634	1,409	981	428	635	56.6	10.1
17 years	22,580	13,454	8,773	4,681	6,272	1,912	1,306	606	942	62.2	8.8
18 years	32,155	20,262	13,626	6,636	8,172	2,444	1,683	761	1,277	65.6	7.9
19 years	41,279	27,293	19,008	8,285	9,435	2,959	1,891	1,068	1,592	68.8	7.5
20-24 years	188,247	131,431	95,964	35,467	37,499	12,062	7,758	4,304	7,255	72.6	6.7
25-29 years	134,784	102,488	78,942	23,546	19,806	6,879	4,119	2,760	5,611	79.3	5.3
30-34 years	88,403	68,454	53,278	15,176	11,080	4,697	2,588	2,109	4,172	81.3	5.6
35-39 years	45,746	34,640	26,635	8,005	6,082	2,711	1,369	1,342	2,313	79.8	6.2
40 years and over	9,626	6,876	5,194	1,682	1,526	668	329	339	556	75.8	7.4
Hispanic [2]	764,339	548,580	396,758	151,822	142,091	46,232	33,598	12,634	27,436	74.4	6.3
Under 15 years	2,725	1,308	813	495	905	387	260	127	125	50.3	14.9
15-19 years	124,677	77,605	52,179	25,426	31,721	10,689	7,705	2,984	4,662	64.7	8.9
15 years	7,288	4,079	2,527	1,552	2,175	774	551	223	260	58.0	11.0
16 years	15,828	9,271	5,981	3,290	4,449	1,504	1,054	450	604	60.9	9.9
17 years	25,113	15,359	10,284	5,075	6,529	2,282	1,624	658	943	63.5	9.4
18 years	33,806	21,310	14,392	6,918	8,509	2,765	2,015	750	1,222	65.4	8.5
19 years	42,642	27,586	18,995	8,591	10,059	3,364	2,461	903	1,633	67.3	8.2
20-24 years	231,475	159,829	113,319	46,510	47,064	15,996	11,655	4,341	8,586	71.7	7.2
25-29 years	203,985	153,576	113,314	40,262	33,151	10,374	7,611	2,763	6,884	77.9	5.3
30-34 years	131,369	102,341	76,965	25,376	18,830	5,600	4,043	1,557	4,598	80.7	4.4
35-39 years	58,146	45,036	33,718	11,318	8,421	2,580	1,874	706	2,109	80.4	4.6
40 years and over	11,962	8,885	6,450	2,435	1,999	606	450	156	472	77.3	5.3

[1] Includes races other than white and black and origin not stated.
[2] Includes all persons of Hispanic origin of any race.

Table 34. Percent of mothers beginning prenatal care in the first trimester and percent of mothers with late or no prenatal care by race and Hispanic origin of mother: United States, each State and territory, 1999

[By place of residence]

State	Percent beginning care in first trimester						Percent late [1] or no care					
		White		Black				White		Black		
	All races [2]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [3]	All races [2]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [3]
United States [4]	83.2	85.1	88.4	74.1	74.1	74.4	3.8	3.2	2.3	6.6	6.6	6.3
Alabama	83.2	88.9	90.0	71.4	71.4	60.5	3.7	2.4	2.0	6.3	6.3	13.9
Alaska	79.4	82.2	82.2	83.6	83.7	79.6	4.8	3.9	4.1	*	*	*
Arizona	75.9	76.6	86.1	74.5	74.3	65.0	7.0	6.8	3.0	6.7	6.7	11.4
Arkansas	79.0	81.7	83.1	69.4	69.4	63.5	4.8	3.8	3.3	8.3	8.3	11.3
California	83.6	83.6	89.2	81.0	81.1	79.7	3.2	3.2	2.0	3.9	3.9	4.0
Colorado	81.7	82.0	88.4	75.4	75.2	66.0	4.3	4.2	2.4	6.4	6.5	8.8
Connecticut	89.3	90.6	93.1	81.0	81.5	78.3	2.0	1.8	1.4	3.7	3.7	3.8
Delaware	83.7	86.4	88.2	75.5	75.5	71.8	3.6	2.9	2.5	5.9	5.8	6.0
District of Columbia	71.9	82.7	90.9	67.1	67.0	64.2	9.3	5.5	2.7	11.1	11.1	11.8
Florida	83.9	87.1	89.1	73.6	73.6	81.3	3.4	2.6	2.1	6.0	6.0	4.2
Georgia	87.3	90.4	91.9	81.1	81.0	79.7	2.5	1.8	1.3	3.9	3.9	5.4
Hawaii	85.7	91.0	91.7	91.2	90.7	83.8	2.9	2.1	1.9	*	*	3.2
Idaho	80.5	80.7	82.9	73.7	73.6	64.8	3.9	3.8	3.1	*	*	8.6
Illinois	82.5	85.4	89.9	70.0	69.9	72.4	4.1	3.0	2.1	8.7	8.7	5.9
Indiana	80.6	82.2	83.3	67.3	67.2	64.4	3.7	3.3	2.9	7.3	7.3	9.1
Iowa	87.7	88.3	89.1	74.8	75.2	71.2	2.2	2.1	1.9	5.1	5.2	6.5
Kansas	85.8	86.7	89.2	76.9	77.0	68.1	2.9	2.7	1.9	4.7	4.8	8.2
Kentucky	86.6	87.4	87.7	78.3	78.3	71.2	2.6	2.4	2.3	4.9	5.0	9.1
Louisiana	82.9	89.7	89.8	73.2	73.2	85.6	3.7	1.9	1.8	6.3	6.3	2.7
Maine	89.2	89.5	89.7	83.0	81.4	84.4	1.8	1.7	1.7	*	*	*
Maryland	87.0	91.4	92.4	78.0	78.0	81.4	3.1	1.9	1.6	5.7	5.7	4.3
Massachusetts	89.4	90.8	92.2	80.0	80.3	79.0	2.4	2.0	1.7	5.4	5.2	4.7
Michigan	84.0	87.0	88.5	69.9	69.9	72.0	3.6	2.6	2.2	8.2	8.1	6.4
Minnesota	84.5	87.0	88.1	66.4	66.2	62.1	2.7	2.2	1.9	6.7	6.6	7.7
Mississippi	81.5	89.1	89.3	72.7	72.7	74.5	3.6	1.7	1.6	5.9	5.9	6.3
Missouri	87.1	89.0	89.5	76.4	76.3	77.5	2.7	2.2	2.0	5.9	5.9	5.4
Montana	83.8	85.8	86.1	85.7	87.5	76.4	3.0	2.3	2.1	*	*	6.6
Nebraska	84.4	85.4	87.4	73.8	73.9	68.8	2.9	2.5	2.0	6.9	6.8	7.1
Nevada	75.2	75.5	83.2	69.6	69.8	62.0	6.7	6.7	4.0	8.1	7.9	11.4
New Hampshire	90.7	91.0	91.4	72.9	70.9	80.6	1.5	1.4	1.3	*	*	*
New Jersey	81.3	85.1	89.7	64.8	64.6	69.9	4.7	3.3	2.1	10.8	10.9	7.3
New Mexico	66.8	68.1	73.6	62.6	61.8	64.4	10.0	9.5	7.6	10.4	11.1	10.8
New York	81.0	84.2	88.1	71.0	71.2	71.8	5.1	3.9	2.9	8.7	8.8	7.3
North Carolina	85.0	88.4	91.1	76.1	76.0	68.7	3.0	2.2	1.5	5.3	5.3	7.3
North Dakota	86.3	88.3	88.6	72.1	72.6	81.7	2.0	1.3	1.2	*	*	*
Ohio	86.6	88.4	88.6	76.3	76.6	77.9	3.5	2.7	2.6	8.2	7.9	5.3
Oklahoma	80.5	82.6	83.8	73.1	73.2	68.7	4.2	3.5	3.2	6.0	5.9	6.8
Oregon	80.9	81.2	83.8	76.0	76.1	68.6	3.7	3.6	3.0	3.4	3.3	6.6
Pennsylvania	85.2	87.6	88.5	71.6	71.6	73.9	3.3	2.6	2.4	8.0	8.0	5.6
Rhode Island	91.3	92.4	93.6	83.2	83.7	86.1	1.4	1.1	0.9	3.4	2.8	2.5
South Carolina	80.7	85.9	87.2	70.9	70.9	61.1	4.7	3.1	2.6	7.7	7.7	11.7
South Dakota	83.4	87.0	87.4	74.2	73.9	68.5	3.1	1.8	1.7	*	*	*
Tennessee	84.3	87.0	87.9	74.6	74.6	64.0	3.5	2.5	2.1	7.1	7.1	12.4
Texas	79.3	79.3	87.3	76.7	76.7	72.2	5.5	5.4	2.8	6.2	6.2	7.9
Utah	80.5	81.5	84.0	63.7	62.4	63.0	4.4	4.1	3.3	9.8	10.3	9.3
Vermont	87.9	88.0	88.0	81.6	84.8	80.6	2.5	2.4	2.4	*	*	*
Virginia	85.3	88.6	90.2	74.5	74.5	74.0	3.2	2.3	1.9	6.0	6.0	6.2
Washington	82.8	83.6	86.0	75.7	75.5	71.1	3.1	2.9	2.4	4.4	4.3	5.6
West Virginia	85.1	85.6	85.7	70.7	70.8	68.8	2.4	2.4	2.4	4.3	4.3	*
Wisconsin	84.1	86.6	87.7	69.1	69.1	70.6	3.3	2.5	2.2	8.6	8.6	7.4
Wyoming	83.0	83.4	84.3	76.4	76.8	74.8	3.7	3.6	3.3	*	*	6.3
Puerto Rico	77.7	78.5	---	69.0	---	---	3.7	3.5	---	5.4	---	---
Virgin Islands	59.6	63.1	73.5	58.2	59.0	57.5	11.7	9.0	*	12.4	12.2	8.7
Guam	61.8	86.5	87.8	77.6	79.2	73.3	14.0	*	*	*	*	*
American Samoa	---	---	---	---	---	---	---	---	---	---	---	---
Northern Marianas	30.2	*	---	*	---	---	25.7	*	---	*	---	---

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or .
--- Data not available.
1 Care beginning in 3rd trimester.
2 Includes races other than white and black and origin not stated.
3 Includes all persons of Hispanic origin of any race.
4 Excludes data for the territories.

NOTE: Data on prenatal care are not available for American Samoa. Data on month prenatal care began for the Northern Marianas are substantially incomplete; see Table I in the Technical notes.

Table 35. Live births by month of pregnancy prenatal care began, number of prenatal visits, and median number of visits, by race and Hispanic origin of mother: United States, 1999

Number of prenatal visits and race and Hispanic origin of mother	All births	Month of pregnancy prenatal care began							
		1st trimester			2d trimester	Late or no care			Not stated
		Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care	
All races [1]	3,959,417	3,198,714	2,478,491	720,223	499,928	146,449	102,202	44,247	114,326
No visits	44,247	...	...	...	...	44,247	...	44,247	...
1-2 visits	39,675	9,921	6,689	3,232	9,343	18,469	18,469	...	1,942
3-4 visits	81,104	23,723	13,755	9,968	28,884	25,807	25,807	...	2,690
5-6 visits	172,584	73,357	43,087	30,270	69,951	25,495	25,495	...	3,781
7-8 visits	317,189	191,117	118,244	72,873	106,027	14,975	14,975	...	5,070
9-10 visits	745,368	589,430	398,952	190,478	138,821	8,435	8,435	...	8,682
11-12 visits	1,024,418	935,203	726,827	208,376	79,565	3,435	3,435	...	6,215
13-14 visits	657,157	623,916	520,336	103,580	28,675	1,395	1,395	...	3,171
15-16 visits	474,820	452,829	393,370	59,459	18,742	1,001	1,001	...	2,248
17-18 visits	103,130	98,949	85,839	13,110	3,428	203	203	...	550
19 visits or more	146,593	139,332	123,321	16,011	5,872	461	461	...	928
Not stated	153,132	60,937	48,071	12,866	10,620	2,526	2,526	...	79,049
Median number of visits	12.3	12.6	12.8	11.6	9.6	5.4	5.4	...	10.3
White, total	3,132,501	2,597,095	2,030,014	567,081	357,303	98,770	71,262	27,508	79,333
No visits	27,508	...	...	...	...	27,508	...	27,508	...
1-2 visits	25,067	6,381	4,332	2,049	5,403	12,137	12,137	...	1,146
3-4 visits	53,202	15,775	9,199	6,576	18,194	17,513	17,513	...	1,720
5-6 visits	120,541	52,425	30,736	21,689	47,541	18,026	18,026	...	2,549
7-8 visits	238,264	148,071	92,464	55,607	75,704	10,848	10,848	...	3,641
9-10 visits	582,074	468,547	320,114	148,433	101,076	6,133	6,133	...	6,318
11-12 visits	838,448	771,527	603,619	167,908	59,551	2,573	2,573	...	4,797
13-14 visits	547,578	522,041	436,894	85,147	21,990	1,075	1,075	...	2,472
15-16 visits	388,062	371,505	323,812	47,693	14,029	788	788	...	1,740
17-18 visits	85,252	82,014	71,521	10,493	2,633	153	153	...	452
19 visits or more	118,521	113,330	101,140	12,190	4,138	354	354	...	699
Not stated	107,984	45,479	36,183	9,296	7,044	1,662	1,662	...	53,799
Median number of visits	12.4	12.7	12.9	11.7	9.8	5.6	5.6	...	10.4
White, non-Hispanic	2,346,450	2,030,575	1,618,301	412,274	214,732	52,435	37,826	14,609	48,708
No visits	14,609	...	...	...	...	14,609	...	14,609	...
1-2 visits	13,307	3,687	2,576	1,111	2,795	6,184	6,184	...	641
3-4 visits	29,001	9,446	5,729	3,717	9,716	8,852	8,852	...	987
5-6 visits	72,455	34,980	21,352	13,628	26,592	9,351	9,351	...	1,532
7-8 visits	159,717	107,017	68,775	38,242	44,513	5,921	5,921	...	2,266
9-10 visits	416,996	348,502	244,266	104,236	60,700	3,486	3,486	...	4,308
11-12 visits	664,465	620,066	492,401	127,665	39,171	1,677	1,677	...	3,551
13-14 visits	443,357	425,567	359,099	66,468	15,174	680	680	...	1,936
15-16 visits	302,852	292,770	258,074	34,696	8,246	500	500	...	1,336
17-18 visits	68,686	66,412	58,256	8,156	1,809	104	104	...	361
19 visits or more	96,222	92,758	83,544	9,214	2,706	256	256	...	502
Not stated	64,783	29,370	24,229	5,141	3,310	815	815	...	31,288
Median number of visits	12.5	12.7	12.9	11.9	10.0	5.7	5.7	...	10.7
Black, total	605,970	429,639	317,995	111,644	111,678	38,493	23,943	14,550	26,160
No visits	14,550	...	...	...	...	14,550	...	14,550	...
1-2 visits	11,947	2,931	1,951	980	3,302	5,040	5,040	...	674
3-4 visits	22,230	6,386	3,673	2,713	8,584	6,508	6,508	...	752
5-6 visits	40,073	15,854	9,447	6,407	17,536	5,739	5,739	...	944
7-8 visits	57,558	30,183	18,050	12,133	23,209	3,096	3,096	...	1,070
9-10 visits	119,593	86,624	56,079	30,545	29,478	1,746	1,746	...	1,745
11-12 visits	128,219	111,403	82,693	28,710	15,255	611	611	...	950
13-14 visits	76,811	70,916	57,808	13,108	5,208	221	221	...	466
15-16 visits	64,126	59,695	50,807	8,888	3,895	156	156	...	380
17-18 visits	13,065	12,307	10,295	2,012	645	35	35	...	78
19 visits or more	22,298	20,552	17,393	3,159	1,487	84	84	...	175
Not stated	35,500	12,788	9,799	2,989	3,079	707	707	...	18,926
Median number of visits	11.7	12.5	12.7	11.2	9.2	5.0	5.0	...	9.4

See footnotes at end of table.

Table 35. Live births by month of pregnancy prenatal care began, number of prenatal visits, and median number of visits, by race and Hispanic origin of mother: United States, 1999 --Con.

Number of prenatal visits and race and Hispanic origin of mother	All births	Month of pregnancy prenatal care began							
		1st trimester			2d trimester	Late or no care			Not stated
		Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care	
Black, non-Hispanic	588,981	418,140	309,771	108,369	108,654	37,280	23,105	14,175	24,907
No visits	14,175	...	...	...	...	14,175	...	14,175	...
1-2 visits	11,654	2,866	1,910	956	3,231	4,903	4,903	...	654
3-4 visits	21,608	6,235	3,590	2,645	8,376	6,287	6,287	...	710
5-6 visits	38,969	15,442	9,228	6,214	17,095	5,530	5,530	...	902
7-8 visits	55,803	29,276	17,523	11,753	22,547	2,971	2,971	...	1,009
9-10 visits	115,543	83,585	54,071	29,514	28,656	1,676	1,676	...	1,626
11-12 visits	124,630	108,364	80,462	27,902	14,802	583	583	...	881
13-14 visits	74,901	69,204	56,483	12,721	5,040	215	215	...	442
15-16 visits	62,880	58,538	49,840	8,698	3,820	154	154	...	368
17-18 visits	12,773	12,036	10,077	1,959	627	33	33	...	77
19 visits or more	21,830	20,124	17,031	3,093	1,456	84	84	...	166
Not stated	34,215	12,470	9,556	2,914	3,004	669	669	...	18,072
Median number of visits	11.8	12.5	12.7	11.2	9.2	5.0	5.0	...	9.3
Hispanic [2]	764,339	548,580	396,758	151,822	142,091	46,232	33,598	12,634	27,436
No visits	12,634	...	...	...	...	12,634	...	12,634	...
1-2 visits	11,792	2,679	1,747	932	2,633	5,990	5,990	...	490
3-4 visits	24,332	6,319	3,467	2,852	8,545	8,739	8,739	...	729
5-6 visits	48,058	17,303	9,269	8,034	21,048	8,723	8,723	...	984
7-8 visits	77,792	40,432	23,274	17,158	31,079	4,939	4,939	...	1,342
9-10 visits	162,407	117,556	73,837	43,719	40,200	2,657	2,657	...	1,994
11-12 visits	167,443	145,168	106,051	39,117	20,184	908	908	...	1,183
13-14 visits	100,019	92,387	74,350	18,037	6,729	393	393	...	510
15-16 visits	82,714	76,312	63,598	12,714	5,737	287	287	...	378
17-18 visits	15,984	15,022	12,751	2,271	825	50	50	...	87
19 visits or more	21,588	19,894	16,968	2,926	1,419	96	96	...	179
Not stated	39,576	15,508	11,446	4,062	3,692	816	816	...	19,560
Median number of visits	11.6	12.4	12.7	11.1	9.4	5.4	5.4	...	9.7

... Category not applicable.
[1] Includes races other than white and black and origin not stated.
[2] Includes all persons of Hispanic origin of any race.

Table 36. Live births to mothers with selected obstetric procedures and rates by age of mother, by race of mother: United States, 1999

[Rates are number of live births with specified procedure per 1,000 live births in specified group]

Obstetric procedure and race of mother	All births	Obstetric procedure reported	Age of mother							Not stated [1]
			All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
All races [2]										
Amniocentesis	3,959,417	103,874	26.5	6.8	8.6	11.6	21.8	109.7	156.0	42,734
Electronic fetal monitoring	3,959,417	3,296,037	841.5	851.9	846.7	844.2	837.2	826.4	813.4	42,734
Induction of labor	3,959,417	775,245	197.9	182.7	195.2	206.0	201.4	194.9	192.7	42,734
Stimulation of labor	3,959,417	702,784	179.4	192.9	184.4	182.2	175.2	161.0	149.9	42,734
Tocolysis	3,959,417	92,342	23.6	25.4	24.2	23.4	22.8	22.4	22.7	42,734
Ultrasound	3,959,417	2,579,276	658.5	630.4	646.7	665.0	672.4	671.0	664.8	42,734
White										
Amniocentesis	3,132,501	87,511	28.2	6.9	8.8	11.7	22.4	114.6	166.2	33,113
Electronic fetal monitoring	3,132,501	2,614,055	843.4	853.3	847.6	846.8	840.2	829.1	815.0	33,113
Induction of labor	3,132,501	648,095	209.1	194.6	207.5	217.2	211.1	203.9	200.8	33,113
Stimulation of labor	3,132,501	566,588	182.8	200.5	189.5	184.9	177.6	163.4	153.1	33,113
Tocolysis	3,132,501	73,884	23.8	26.5	24.7	23.6	23.0	22.4	22.0	33,113
Ultrasound	3,132,501	2,081,638	671.6	648.0	660.9	676.6	682.6	681.2	676.4	33,113
Black										
Amniocentesis	605,970	9,296	15.5	6.3	7.8	11.2	17.0	64.7	89.4	4,468
Electronic fetal monitoring	605,970	508,057	844.6	853.7	850.0	842.7	834.6	828.6	823.0	4,468
Induction of labor	605,970	95,500	158.8	154.5	156.9	162.7	160.6	161.4	164.2	4,468
Stimulation of labor	605,970	97,708	162.4	175.5	167.4	160.5	151.1	141.5	134.0	4,468
Tocolysis	605,970	13,477	22.4	21.6	21.8	22.7	23.2	23.8	26.6	4,468
Ultrasound	605,970	362,419	602.5	586.9	599.9	610.3	612.3	611.9	607.9	4,468

[1] No response reported for the obstetric procedures item.
[2] Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on the birth certificate. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 37. Live births to mothers with selected complications of labor and/or delivery and rates by age of mother, by race of mother: United States, 1999

[Rates are number of live births with specified complication per 1,000 live births in specified group]

Complication and race of mother	All births [1]	Complication reported	Age of mother						Not stated [2]
			All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
All races [3]										
Febrile	3,959,417	59,904	15.3	18.5	15.6	15.9	14.5	12.3	11.1	52,046
Meconium, moderate/heavy	3,959,417	213,698	54.7	59.7	55.2	53.5	52.5	55.1	55.5	52,046
Premature rupture of membrane	3,959,417	100,130	25.6	26.7	24.3	25.1	25.8	27.3	30.9	52,046
Abruptio placenta	3,959,417	21,999	5.6	5.4	5.2	5.3	5.8	7.0	8.6	52,046
Placenta previa	3,959,417	12,492	3.2	1.1	1.7	2.8	4.3	6.5	8.9	52,046
Other excessive bleeding	3,959,417	21,930	5.6	5.2	5.2	5.5	5.8	6.4	8.2	52,046
Seizures during labor	3,959,417	1,331	0.3	0.7	0.4	0.3	0.2	0.3	0.3	52,046
Precipitous labor	3,959,417	77,848	19.9	14.3	18.9	19.8	22.1	23.6	23.3	52,046
Prolonged labor	3,959,417	30,683	7.9	8.4	8.0	7.8	7.8	7.3	7.9	52,046
Dysfunctional labor	3,959,417	105,795	27.1	26.5	25.5	27.4	27.7	28.2	31.2	52,046
Breech/Malpresentation	3,959,417	152,084	38.9	29.2	31.5	39.1	44.7	50.4	58.1	52,046
Cephalopelvic disproportion	3,959,417	71,604	18.3	17.4	16.7	19.2	19.2	18.6	20.6	52,046
Cord prolapse	3,959,417	7,773	2.0	1.6	1.8	1.9	2.1	2.5	2.8	52,046
Anesthetic complication [4]	3,610,172	2,299	0.6	0.4	0.5	0.7	0.7	0.8	0.9	54,515
Fetal distress [4]	3,610,172	140,756	39.6	43.7	38.5	38.0	38.6	41.7	49.7	54,515
White										
Febrile	3,132,501	45,210	14.6	17.7	15.1	15.2	13.8	11.7	10.9	40,717
Meconium, moderate/heavy	3,132,501	156,049	50.5	53.5	50.6	49.7	49.1	51.7	52.3	40,717
Premature rupture of membrane	3,132,501	75,850	24.5	24.8	23.0	24.1	25.0	26.3	30.6	40,717
Abruptio placenta	3,132,501	16,703	5.4	5.0	4.9	5.1	5.6	6.7	8.2	40,717
Placenta previa	3,132,501	9,651	3.1	1.1	1.7	2.7	4.1	6.2	8.3	40,717
Other excessive bleeding	3,132,501	17,533	5.7	5.5	5.4	5.5	5.7	6.3	7.8	40,717
Seizures during labor	3,132,501	951	0.3	0.6	0.3	0.2	0.2	0.2	0.3	40,717
Precipitous labor	3,132,501	60,427	19.5	13.2	18.1	19.3	21.9	23.8	23.0	40,717
Prolonged labor	3,132,501	24,903	8.1	8.8	8.3	8.0	7.9	7.4	8.3	40,717
Dysfunctional labor	3,132,501	84,394	27.3	26.8	25.7	27.8	27.7	28.1	31.3	40,717
Breech/Malpresentation	3,132,501	126,242	40.8	31.7	33.2	40.9	45.8	51.4	59.1	40,717
Cephalopelvic disproportion	3,132,501	58,220	18.8	17.9	17.6	19.8	19.3	18.6	20.7	40,717
Cord prolapse	3,132,501	6,076	2.0	1.6	1.8	1.9	2.1	2.4	2.7	40,717
Anesthetic complication [4]	2,834,420	1,848	0.7	0.4	0.5	0.7	0.8	0.8	0.9	42,827
Fetal distress [4]	2,834,420	105,319	37.7	41.3	36.7	36.5	36.7	39.8	47.6	42,827
Black										
Febrile	605,970	9,786	16.3	20.5	15.9	15.8	14.6	13.0	10.6	5,735
Meconium, moderate/heavy	605,970	45,488	75.8	76.8	72.8	75.1	78.8	81.0	76.8	5,735
Premature rupture of membrane	605,970	18,460	30.8	30.6	28.3	30.4	33.7	35.1	36.1	5,735
Abruptio placenta	605,970	4,128	6.9	6.2	6.0	7.1	7.8	9.1	9.9	5,735
Placenta previa	605,970	1,861	3.1	1.1	1.9	3.3	5.2	6.8	10.8	5,735
Other excessive bleeding	605,970	2,511	4.2	3.5	3.8	4.0	4.9	5.7	8.2	5,735
Seizures during labor	605,970	303	0.5	0.9	0.5	0.4	0.3	0.4	*	5,735
Precipitous labor	605,970	12,930	21.5	16.6	21.7	22.7	24.8	23.5	24.9	5,735
Prolonged labor	605,970	3,893	6.5	6.9	6.4	6.2	6.6	6.2	6.0	5,735
Dysfunctional labor	605,970	15,292	25.5	25.3	24.3	24.9	27.2	28.8	27.9	5,735
Breech/Malpresentation	605,970	18,256	30.4	22.5	25.7	31.0	39.5	46.3	53.8	5,735
Cephalopelvic disproportion	605,970	8,644	14.4	16.2	13.2	14.3	14.6	14.5	14.1	5,735
Cord prolapse	605,970	1,307	2.2	1.7	1.9	2.1	2.6	3.6	3.7	5,735
Anesthetic complication [4]	565,873	342	0.6	0.5	0.5	0.6	0.8	0.9	*	6,053
Fetal distress [4]	565,873	28,085	50.2	50.7	46.2	48.8	54.1	58.5	63.0	6,053

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Total number of births to residents of areas reporting specified complication.
2 No response reported for the complications item.
3 Includes races other than white and black.
4 Texas does not report this complication.

NOTE: Race and Hispanic origin are reported separately on the birth certificate. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 38. Live births by attendant, place of delivery, and race and Hispanic origin of mother: United States, 1999

Place of delivery and race and Hispanic origin of mother	All births	Physician			Midwife			Other	Unspecified
		Total	Doctor of medicine	Doctor of osteopathy	Total	Certified nurse midwife	Other midwife		
All races [1]									
Total	3,959,417	3,633,115	3,473,378	159,737	303,141	287,298	15,843	21,889	1,272
In hospital[2]	3,923,059	3,628,084	3,469,267	158,817	282,352	278,364	3,988	11,929	694
Not in hospital	35,977	4,879	3,968	911	20,647	8,799	11,848	9,924	527
Freestanding birthing center	9,642	1,446	847	599	7,952	5,437	2,515	237	7
Clinic or doctor's office	464	274	254	20	145	44	101	43	2
Residence	23,518	2,476	2,219	257	12,123	3,064	9,059	8,524	395
Other	2,353	683	648	35	427	254	173	1,120	123
Not specified	381	152	143	9	142	135	7	36	51
White, total									
Total	3,132,501	2,875,669	2,737,954	137,715	238,595	223,986	14,609	17,348	889
In hospital[2]	3,100,598	2,871,951	2,735,099	136,852	218,858	215,717	3,141	9,282	507
Not in hospital	31,583	3,589	2,733	856	19,609	8,147	11,462	8,039	346
Freestanding birthing center	9,044	1,366	772	594	7,454	5,046	2,408	217	7
Clinic or doctor's office	384	226	212	14	133	39	94	24	1
Residence	20,615	1,636	1,410	226	11,661	2,864	8,797	7,045	273
Other	1,540	361	339	22	361	198	163	753	65
Not specified	320	129	122	7	128	122	6	27	36
White, non-Hispanic									
Total	2,346,450	2,168,573	2,055,891	112,682	164,600	152,598	12,002	12,640	637
In hospital[2]	2,319,638	2,165,402	2,053,556	111,846	147,859	145,531	2,328	5,976	401
Not in hospital	26,535	3,058	2,228	830	16,622	6,954	9,668	6,646	209
Freestanding birthing center	6,999	1,241	655	586	5,602	4,235	1,367	155	1
Clinic or doctor's office	339	206	192	14	118	34	84	14	1
Residence	18,161	1,369	1,153	216	10,624	2,553	8,071	5,983	185
Other	1,036	242	228	14	278	132	146	494	22
Not specified	277	113	107	6	119	113	6	18	27
Black, total									
Total	605,970	556,639	540,308	16,331	45,723	44,933	790	3,341	267
In hospital[2]	602,652	555,527	539,237	16,290	45,092	44,477	615	1,903	130
Not in hospital	3,272	1,094	1,054	40	625	451	174	1,429	124
Freestanding birthing center	391	61	59	2	316	258	58	14	-
Clinic or doctor's office	24	16	14	2	8	2	6	-	-
Residence	2,239	733	708	25	259	153	106	1,169	78
Other	618	284	273	11	42	38	4	246	46
Not specified	46	18	17	1	6	5	1	9	13
Black, non-Hispanic									
Total	588,981	542,427	526,850	15,577	43,037	42,280	757	3,268	249
In hospital[2]	585,821	541,350	525,812	15,538	42,474	41,866	608	1,871	126
Not in hospital	3,123	1,060	1,022	38	558	410	148	1,390	115
Freestanding birthing center	362	61	59	2	288	235	53	13	-
Clinic or doctor's office	24	16	14	2	8	2	6	-	-
Residence	2,143	706	683	23	224	139	85	1,138	75
Other	594	277	266	11	38	34	4	239	40
Not specified	37	17	16	1	5	4	1	7	8
Hispanic [3]									
Total	764,339	687,152	663,212	23,940	72,838	70,449	2,389	4,181	168
In hospital[2]	759,949	686,658	662,738	23,920	70,151	69,379	772	3,075	65
Not in hospital	4,368	484	464	20	2,682	1,065	1,617	1,099	103
Freestanding birthing center	2,048	122	117	5	1,857	809	1,048	63	6
Clinic or doctor's office	43	18	18	-	15	5	10	10	-
Residence	1,821	227	220	7	737	195	542	797	60
Other	456	117	109	8	73	56	17	229	37
Not specified	22	10	10	-	5	5	-	7	-

- Quantity zero.
1 Includes races other than white and black and origin not stated.
2 Includes births occurring en route to or on arrival at hospital.
3 Includes all persons of Hispanic origin of any race.

Table 39. Live births by method of delivery and rates of cesarean delivery and vaginal birth after previous cesarean delivery, by race and Hispanic origin of mother: United States, 1989-99

Year and race and Hispanic origin of mother	Births by method of delivery							Cesarean delivery rate		Rate of vaginal birth after previous cesarean [3]
	All births	Vaginal		Cesarean			Not stated	Total [1]	Primary [2]	
		Total	After previous cesarean	Total	Primary	Repeat				
All races [4]										
1999	3,959,417	3,063,870	97,680	862,086	542,080	320,006	33,461	22.0	15.5	23.4
1998	3,941,553	3,078,537	108,903	825,870	519,975	305,895	37,146	21.2	14.9	26.3
1997	3,880,894	3,046,621	112,145	799,033	502,526	296,507	35,240	20.8	14.6	27.4
1996	3,891,494	3,061,092	116,045	797,119	503,724	293,395	33,283	20.7	14.6	28.3
1995	3,899,589	3,063,724	112,439	806,722	510,104	296,618	29,143	20.8	14.7	27.5
1994	3,952,767	3,087,576	110,341	830,517	520,647	309,870	34,674	21.2	14.9	26.3
1993	4,000,240	3,098,796	103,581	861,987	539,251	322,736	39,457	21.8	15.3	24.3
1992	4,065,014	3,100,710	97,549	888,622	554,662	333,960	75,682	22.3	15.6	22.6
1991	4,110,907	3,100,891	90,690	905,077	569,195	335,882	104,939	22.6	15.9	21.3
1990 [5]	4,110,563	3,111,421	84,299	914,096	575,066	339,030	85,046	22.7	16.0	19.9
1989 [6]	3,798,734	2,793,463	71,019	826,955	521,873	305,082	178,316	22.8	16.1	18.9
White, total										
1999	3,132,501	2,426,092	77,158	678,952	424,148	254,804	27,457	21.9	15.3	23.2
1998	3,118,727	2,440,113	86,495	649,987	406,439	243,548	28,627	21.0	14.7	26.2
1997	3,072,640	2,415,236	89,522	630,613	393,603	237,010	26,791	20.7	14.5	27.4
1996	3,093,057	2,434,079	93,783	631,409	395,851	235,558	27,569	20.6	14.5	28.5
1995	3,098,885	2,435,191	90,940	639,818	401,098	238,720	23,876	20.8	14.6	27.6
1994	3,121,004	2,435,965	88,471	656,400	407,946	248,454	28,639	21.2	14.8	26.3
1993	3,149,833	2,435,229	82,995	682,355	423,540	258,815	32,249	21.9	15.3	24.3
1992	3,201,678	2,434,959	77,977	705,841	437,398	268,443	60,878	22.5	15.7	22.5
1991	3,241,273	2,434,900	72,564	723,088	452,534	270,554	83,285	22.9	16.1	21.1
1990 [5]	3,252,473	2,453,857	67,191	732,713	458,656	274,057	65,903	23.0	16.1	19.7
1989 [6]	3,022,537	2,212,843	56,851	667,114	418,177	248,937	142,580	23.2	16.2	18.6
White, non-Hispanic										
1999	2,346,450	1,810,682	59,480	514,051	327,106	186,945	21,717	22.1	15.7	24.1
1998	2,361,462	1,842,420	67,787	495,550	315,138	180,412	23,492	21.2	15.1	27.3
1997	2,333,363	1,829,213	70,284	481,982	305,605	176,377	22,168	20.9	14.8	28.5
1996	2,358,989	1,851,058	73,973	485,530	308,482	177,048	22,401	20.8	14.8	29.5
1995	2,382,638	1,867,024	72,124	496,103	313,933	182,170	19,511	21.0	14.9	28.4
1994	2,438,855	1,896,609	71,597	518,021	324,236	193,785	24,225	21.5	15.1	27.0
1993	2,472,031	1,902,433	67,536	542,013	338,236	203,777	27,585	22.2	15.6	24.9
1992 [8]	2,527,207	1,916,414	63,828	566,788	352,470	214,318	44,005	22.8	16.0	22.9
1991 [8]	2,589,878	1,941,726	60,174	587,802	368,721	219,081	60,350	23.2	16.4	21.5
1990 [5, 9]	2,626,500	1,972,754	55,952	603,467	378,508	224,959	50,279	23.4	16.5	19.9
1989 [6, 10]	2,526,367	1,806,753	47,559	556,585	349,858	206,727	163,029	23.6	16.6	18.7
Black, total										
1999	605,970	462,401	15,438	139,471	88,269	51,202	4,098	23.2	16.5	23.2
1998	609,902	470,088	17,062	135,727	86,438	49,289	4,087	22.4	16.0	25.7
1997	599,913	466,001	16,986	130,142	83,025	47,117	3,770	21.8	15.6	26.5
1996	594,781	462,378	16,866	128,357	82,646	45,711	4,046	21.7	15.6	27.0
1995	603,139	468,984	16,224	130,482	84,441	46,041	3,673	21.8	15.7	26.1
1994	636,391	493,879	16,970	138,067	88,636	49,431	4,445	21.8	15.7	25.6
1993	658,875	509,816	16 179	143,452	91,677	51,775	5,607	22.0	15.7	23.8
1992	673,633	514,929	15 182	146,480	93,165	53,315	12,224	22.1	15.7	22.4
1991	682,602	519,047	14,213	145,583	92,645	52,938	17,972	21.9	15.5	21.2
1990 [5]	679,236	516,581	13,496	146,472	93,476	52,996	16,183	22.1	15.7	20.3
1989 [6]	611,147	452,291	11,104	127,907	82,695	45,212	30,319	22.0	15.8	19.7

See footnotes at end of table.

Table 39. Live births by method of delivery and rates of cesarean delivery and vaginal birth after previous cesarean delivery, by race and Hispanic origin of mother: United States, 1989-99 –Con.

Year and race and Hispanic origin of mother	Births by method of delivery							Cesarean delivery rate		Rate of vaginal birth after previous cesarean [3]
	All births	Vaginal		Cesarean			Not stated	Total [1]	Primary [2]	
		Total	After previous cesarean	Total	Primary	Repeat				
Black, non-Hispanic										
1999	588,981	449,580	14,999	135,508	85,898	49,610	3,893	23.2	16.5	23.2
1998	593,127	457,186	16,510	131,999	84,169	47,830	3,942	22.4	16.0	25.7
1997	581,431	451,744	16,353	126,138	80,599	45,539	3,549	21.8	15.6	26.4
1996	578,099	449,544	16,322	124,836	80,457	44,379	3,719	21.7	15.7	26.9
1995	587,781	457,104	15,721	127,171	82,395	44,776	3,506	21.8	15.7	26.0
1994	619,198	480,551	16,478	134,526	86,411	48,115	4,121	21.9	15.7	25.5
1993	641,273	496,333	15,675	139,702	89,315	50,387	5,238	22.0	15.7	23.7
1992 [8]	657,450	502,669	14,950	143,153	91,086	52,067	11,628	22.2	15.7	22.3
1991 [8]	666,758	507,522	13,847	142,417	90,664	51,753	16,819	21.9	15.5	21.1
1990 [5, 9]	661,701	503,720	13,157	142,838	91,175	51,663	15,143	22.1	15.7	20.3
1989 [6, 10]	611,269	440,310	10,726	125,290	81,177	44,113	45,669	22.2	15.9	19.6
Hispanic [7]										
1999	764,339	599,118	16,915	161,035	94,433	66,602	4,186	21.2	14.0	20.3
1998	734,661	580,143	17,803	150,317	88,763	61,554	4,201	20.6	13.6	22.4
1997	709,767	563,114	17,942	142,907	84,410	58,497	3,746	20.2	13.4	23.5
1996	701,339	558,105	18,491	139,554	83,392	56,162	3,680	20.0	13.4	24.8
1995	679,768	539,731	17,396	136,640	82,662	53,978	3,397	20.2	13.7	24.4
1994	665,026	525,928	16,206	135,569	81,961	53,608	3,529	20.5	13.9	23.2
1993	654,418	514,493	14,586	136,279	82,576	53,703	3,646	20.9	14.2	21.4
1992 [8]	643,271	494,338	13,111	133,369	81,211	52,158	15,564	21.2	14.4	20.1
1991 [8]	623,085	472,126	11,615	129,752	80,228	49,524	21,207	21.6	14.8	19.0
1990 [5, 9]	595,073	458,242	10,395	122,969	76,027	46,942	13,862	21.2	14.5	18.1
1989 [6, 10]	532,249	385,462	8,549	105,268	64,905	40,363	41,519	21.5	14.7	17.5

[1] Percent of all live births by cesarean delivery.
[2] Number of primary cesareans per 100 live births to women who have not had a previous cesarean.
[3] Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.
[4] Includes races other than white and black and origin not stated.
[5] Excludes data for Oklahoma, which did not report method of delivery on the birth certificate.
[6] Excludes data for Louisiana, Maryland, Nebraska, Nevada, and Oklahoma, which did not report method of delivery on the birth certificate.
[7] Includes all persons of Hispanic origin of any race.
[8] Excludes data for New Hampshire which did not report Hispanic origin.
[9] Excludes data for New Hampshire and Oklahoma which did not report Hispanic origin.
[10] Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.

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Table 40. Live births by method of delivery, and rates of cesarean delivery and vaginal birth after previous cesarean delivery, by age and race and Hispanic origin of mother: United States, 1999

Age and race and Hispanic origin of mother	Births by method of delivery							Cesarean delivery rate		
	All births	Vaginal		Cesarean			Not stated	Total [1]	Primary [2]	Rate of vaginal birth after previous cesarean [3]
		Total	After previous cesarean	Total	Primary	Repeat				
All races [4]	3,959,417	3,063,870	97,680	862,086	542,080	320,006	33,461	22.0	15.5	23.4
Under 20 years	485,104	408,830	3,128	72,258	64,254	8,004	4,016	15.0	13.7	28.1
20-24 years	981,929	799,209	18,945	174,252	120,238	54,014	8,468	17.9	13.4	26.0
25-29 years	1,078,252	836,383	27,891	232,492	144,759	87,733	9,377	21.8	15.2	24.1
30-34 years	892,400	660,715	29,242	224,387	126,681	97,706	7,298	25.4	16.7	23.0
35-39 years	434,294	302,099	15,703	128,610	68,532	60,078	3,585	29.9	19.3	20.7
40-54 years	87,438	56,634	2,771	30,087	17,616	12,471	717	34.7	24.6	18.2
White, total	3,132,501	2,426,092	77,158	678,952	424,148	254,804	27,457	21.9	15.3	23.2
Under 20 years	342,627	289,793	1,950	49,886	44,663	5,223	2,948	14.7	13.4	27.2
20-24 years	748,371	610,935	13,539	130,749	91,163	39,586	6,687	17.6	13.2	25.5
25-29 years	873,654	678,889	21,983	186,903	116,674	70,229	7,862	21.6	15.1	23.8
30-34 years	739,948	549,915	24,213	183,763	102,932	80,831	6,270	25.0	16.4	23.1
35-39 years	356,959	250,215	13,179	103,671	54,743	48,928	3,073	29.3	18.8	21.2
40-54 years	70,942	46,345	2,294	23,980	13,973	10,007	617	34.1	24.1	18.6
White, non-Hispanic	2,346,450	1,810,682	59,480	514,051	327,106	186,945	21,717	22.1	15.7	24.1
Under 20 years	214,971	180,801	1,101	31,961	28,984	2,977	2,209	15.0	13.9	27.0
20-24 years	514,386	418,584	9,112	90,579	64,658	25,921	5,223	17.8	13.6	26.0
25-29 years	663,569	515,878	16,271	141,398	91,998	49,400	6,293	21.5	15.6	24.8
30-34 years	600,830	449,181	19,850	146,621	84,695	61,926	5,028	24.6	16.5	24.3
35-39 years	294,590	208,110	11,191	84,028	45,256	38,772	2,452	28.8	18.7	22.4
40-54 years	58,104	38,128	1,955	19,464	11,515	7,949	512	33.8	24.1	19.7
Black, total	605,970	462,401	15,438	139,471	88,269	51,202	4,098	23.2	16.5	23.2
Under 20 years	125,143	103,881	1,082	20,431	17,824	2,607	831	16.4	14.8	29.3
20-24 years	193,211	154,052	4,738	37,854	24,777	13,077	1,305	19.7	14.2	26.6
25-29 years	138,868	103,988	4,472	33,889	19,551	14,338	991	24.6	16.4	23.8
30-34 years	91,486	63,924	3,292	26,960	14,884	12,076	602	29.7	19.7	21.4
35-39 years	47,277	30,488	1,556	16,479	8,957	7,522	310	35.1	23.6	17.1
40-54 years	9,985	6,068	298	3,858	2,276	1,582	59	38.9	28.3	15.9
Black, non-Hispanic	588,981	449,580	14,999	135,508	85,898	49,610	3,893	23.2	16.5	23.2
Under 20 years	122,175	101,389	1,051	19,988	17,426	2,562	798	16.5	14.8	29.1
20-24 years	188,247	150,035	4,630	36,965	24,169	12,796	1,247	19.8	14.3	26.6
25-29 years	134,784	100,923	4,347	32,920	19,020	13,900	941	24.6	16.5	23.8
30-34 years	88,403	61,808	3,181	26,032	14,446	11,586	563	29.6	19.8	21.5
35-39 years	45,746	29,558	1,506	15,898	8,655	7,243	290	35.0	23.6	17.2
40-54 years	9,626	5,867	284	3,705	2,182	1,523	54	38.7	28.1	15.7
Hispanic [5]	764,339	599,118	16,915	161,035	94,433	66,602	4,186	21.2	14.0	20.3
Under 20 years	127,402	108,863	848	17,905	15,660	2,245	634	14.1	12.7	27.4
20-24 years	231,475	190,436	4,373	39,841	26,277	13,564	1,198	17.3	12.4	24.4
25-29 years	203,985	158,330	5,518	44,513	23,900	20,613	1,142	21.9	13.5	21.1
30-34 years	131,369	94,870	4,066	35,731	17,320	18,411	768	27.4	16.0	18.1
35-39 years	58,146	39,031	1,812	18,733	8,939	9,794	382	32.4	19.4	15.6
40-54 years	11,962	7,588	298	4,312	2,337	1,975	62	36.2	24.3	13.1

[1] Percent of all live births by cesarean delivery.
[2] Number of primary cesareans per 100 live births to women who have not had a previous cesarean.
[3] Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.
[4] Includes races other than white and black and origin not stated.
[5] Includes all persons of Hispanic origin of any race.

Table 41. Rates of cesarean delivery and vaginal birth after previous cesarean delivery by race and Hispanic origin of mother: United States, each State and territory, 1999

[By place of residence]

State	Cesarean delivery rate [1]						Rate of vaginal births after previous cesarean [2]					
		White		Black				White		Black		
	All races [3]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [4]	All races [3]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [4]
United States [5]	22.0	21.9	22.1	23.2	23.2	21.2	23.4	23.2	24.1	23.2	23.2	20.3
Alabama	24.8	25.4	25.6	23.5	23.6	20.4	19.1	18.4	18.2	20.7	20.7	24.1
Alaska	14.8	16.9	16.7	16.0	16.0	17.1	32.8	27.2	27.7	*	*	*
Arizona	17.8	17.9	19.4	18.9	19.1	16.0	22.7	21.9	22.4	16.4	16.5	21.2
Arkansas	25.4	24.9	25.3	27.5	27.5	19.3	15.5	15.9	15.3	13.8	13.8	24.1
California	22.7	22.5	23.5	25.9	26.0	21.9	16.3	16.0	16.9	14.2	14.1	15.5
Colorado	17.3	17.3	17.9	19.2	19.3	15.8	31.0	31.6	30.1	25.6	25.2	34.9
Connecticut	21.0	21.0	21.1	21.4	21.5	19.0	27.6	27.4	27.6	27.6	27.7	26.0
Delaware	23.0	23.2	23.5	23.0	23.0	21.0	28.8	28.5	27.7	28.3	28.5	34.2
District of Columbia	22.2	19.9	23.9	23.2	23.2	12.9	27.3	34.6	25.0	25.2	25.0	50.9
Florida	23.8	24.2	23.4	22.5	22.5	26.4	18.7	18.5	20.4	19.1	19.2	14.5
Georgia	21.7	21.5	22.2	22.3	22.3	16.6	21.6	21.9	21.2	20.6	20.7	26.8
Hawaii	13.8	17.2	17.0	16.6	16.7	16.0	32.4	24.2	24.0	*	*	29.6
Idaho	17.3	17.1	17.0	*	*	18.0	33.4	33.6	33.3	*	*	35.4
Illinois	20.1	20.1	20.9	20.2	20.2	17.8	28.8	29.2	28.8	27.2	27.2	30.4
Indiana	20.5	20.5	20.5	20.5	20.5	19.5	24.6	24.5	24.4	24.9	24.9	26.7
Iowa	19.9	20.0	20.0	18.7	18.1	19.6	28.2	28.3	28.5	27.9	28.1	25.9
Kansas	21.2	21.3	21.4	21.4	21.5	20.2	19.9	19.4	19.1	23.4	23.5	20.0
Kentucky	23.3	23.4	23.4	23.2	23.2	21.6	21.5	21.0	20.8	25.6	25.6	34.9
Louisiana	26.8	27.4	27.4	26.0	26.1	28.9	11.3	8.6	8.5	15.2	15.2	*
Maine	21.5	21.5	21.5	28.3	26.7	28.9	23.5	23.6	23.5	*	*	*
Maryland	23.2	22.5	22.8	24.8	24.8	19.7	26.0	26.6	26.4	24.8	24.8	28.8
Massachusetts	22.4	22.4	22.8	24.0	23.8	20.4	28.3	28.1	28.2	28.2	30.9	24.9
Michigan	21.0	21.1	21.3	20.4	20.4	18.5	22.8	22.3	21.8	25.5	25.5	26.2
Minnesota	18.9	19.4	19.5	18.8	18.7	17.6	25.7	25.4	25.9	25.2	25.1	23.5
Mississippi	27.3	28.1	28.3	26.4	26.4	21.4	13.8	13.5	13.4	14.0	14.0	*
Missouri	21.7	22.1	22.2	19.9	19.9	18.2	25.5	25.0	24.8	29.2	29.1	30.2
Montana	18.8	18.3	18.3	*	*	21.1	31.7	32.6	33.5	*	*	*
Nebraska	22.0	22.1	22.4	20.6	20.7	19.6	23.9	24.2	23.4	23.6	23.1	27.8
Nevada	21.8	21.3	22.5	27.1	27.1	19.2	18.5	18.7	18.2	17.8	18.5	19.1
New Hampshire	19.9	19.9	20.0	25.4	25.0	21.1	36.3	36.5	36.5	*	*	*
New Jersey	26.3	26.3	26.4	26.6	26.1	26.3	30.0	29.5	29.6	32.1	33.9	27.5
New Mexico	16.4	16.8	17.4	18.8	19.4	16.4	30.9	28.8	29.9	*	*	28.2
New York	23.6	23.6	24.3	24.3	24.4	22.7	29.3	29.9	29.5	27.4	28.0	28.4
North Carolina	22.7	22.3	22.9	23.9	23.8	18.1	24.0	24.0	23.5	23.7	23.7	27.8
North Dakota	19.5	19.5	19.8	*	*	*	31.8	32.0	31.8	*	*	*
Ohio	19.4	19.4	19.4	19.2	19.2	18.8	32.2	31.3	31.3	36.8	36.5	31.1
Oklahoma	24.1	24.0	24.4	24.6	24.6	21.5	18.9	18.5	18.4	20.1	20.6	19.1
Oregon	18.4	18.3	18.5	18.4	18.0	17.7	32.4	32.3	31.4	34.6	35.0	36.9
Pennsylvania	20.9	21.2	21.4	20.1	20.1	18.4	30.5	29.6	29.5	35.4	35.4	31.2
Rhode Island	20.5	20.7	21.1	20.7	20.6	20.1	26.6	26.7	26.1	22.9	*	29.9
South Carolina	24.2	24.3	24.6	24.1	24.1	18.8	17.9	17.5	17.1	18.3	18.3	27.2
South Dakota	22.3	22.6	22.7	*	*	19.0	23.0	23.7	23.6	*	*	*
Tennessee	24.0	24.1	24.3	23.9	23.9	20.4	21.0	20.0	20.0	24.2	24.2	21.1
Texas	23.8	23.6	24.9	25.5	25.6	22.5	15.4	15.4	15.6	14.2	14.2	15.2
Utah	16.0	15.9	15.7	20.4	21.3	17.7	35.5	35.5	35.7	*	*	34.6
Vermont	16.4	16.4	16.4	*	*	*	35.7	35.9	35.6	*	*	*
Virginia	21.7	21.6	21.8	22.1	22.1	19.2	26.6	26.1	25.9	27.4	27.4	27.3
Washington	18.9	18.7	18.8	22.5	22.5	17.7	28.8	28.7	27.3	30.7	31.7	32.8
West Virginia	24.8	24.6	24.6	27.3	27.3	25.5	18.4	18.6	18.6	*	*	*
Wisconsin	17.0	17.5	17.6	13.7	13.7	16.2	31.7	30.5	30.6	39.2	39.1	29.5
Wyoming	19.6	19.5	19.6	*	*	18.8	26.9	26.3	26.7	*	*	*
Puerto Rico	37.8	38.0	---	35.8	---	---	6.8	6.8	---	6.8	---	---
Virgin Islands	22.7	29.5	26.6	21.1	20.7	27.8	17.4	*	*	17.6	*	*
Guam	16.6	18.5	18.4	*	*	*	26.8	*	*	*	*	*
American Samoa	---	---	---	---	---	---	---	---	---	---	---	---
Northern Marianas	14.9	*	---	*	---	---	*	*	---	*	---	---

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
--- Data not available.
1 Percent of all live births by cesarean delivery.
2 Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.
3 Includes races other than white and black and origin not stated.
4 Includes all persons of Hispanic origin of any race.
5 Excludes data for the territories.

NOTE: Data on method of delivery for the Northern Marianas are substantially incomplete; see Table I in the Technical notes.

Table 42. Rates of cesarean delivery and vaginal birth after previous cesarean delivery, by selected maternal medical risk factors and complications of labor and/or delivery: United States, 1999

Medical risk factor and complication	All births to mothers with specified condition and/or procedure	Cesarean delivery rate		Rate of vaginal birth after previous cesarean [3]
		Total [1]	Primary [2]	
Medical risk factors				
Anemia	90,322	22.2	15.5	27.3
Cardiac disease	20,189	26.1	19.1	27.0
Acute or chronic lung disease	43,117	25.4	18.4	26.5
Diabetes	106,413	37.2	26.7	17.2
Genital herpes [4]	33,636	34.5	28.4	27.0
Hydramnios/Oligohydramnios	52,704	36.7	31.3	22.4
Hemoglobinopathy	3,165	25.8	18.7	25.3
Hypertension, chronic	27,912	41.2	31.5	15.1
Hypertension, pregnancy-associated	148,837	36.9	31.7	18.0
Eclampsia	11,993	49.1	44.6	14.4
Incompetent cervix	11,344	35.3	27.8	21.8
Renal disease	11,038	26.1	19.1	26.3
Rh sensitization [5]	25,448	22.8	16.1	26.6
Uterine bleeding [4]	22,332	32.6	25.9	22.7
Complications of labor and/or delivery				
Febrile	59,904	29.7	28.0	47.4
Meconium, moderate/heavy	213,698	20.5	17.7	45.1
Premature rupture of membrane	100,130	25.6	22.4	37.2
Abruptio placenta	21,999	59.5	55.0	15.7
Placenta previa	12,492	81.7	77.7	3.6
Other excessive bleeding	21,930	26.5	20.9	32.2
Seizures during labor	1,331	52.2	49.9	*
Precipitous labor (less than 3 hours)	77,848	2.5	1.6	78.3
Prolonged labor (more than 20 hours)	30,683	36.3	34.8	42.5
Dysfunctional labor	105,795	67.3	65.3	15.4
Breech/Malpresentation	152,084	84.5	82.9	5.0
Cephalopelvic disproportion	71,604	96.4	96.0	1.2
Cord prolapse	7,773	65.6	63.5	14.6
Anesthetic complication	2,299	40.1	32.4	19.5
Fetal distress	140,756	57.5	55.1	20.6

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in numerator.
1 Percent of all live births by cesarean delivery.
2 Number of primary cesareans per 100 live births to women who have not had a previous cesarean.
3 Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.
4 Texas does not report this risk factor.
5 Kansas does not report this risk factor.

Table 43. Live births by birthweight and percent very low and low birthweight, by period of gestation and race and Hispanic origin of mother: United States, 1999

Birthweight [1] and race and Hispanic origin of mother	All births	Period of gestation [2]										
		Preterm					Term				Postterm	Not stated
		Total under 37 weeks	Under 28 weeks	28-31 weeks	32-35 weeks	36 weeks	Total 37-41 weeks	37-39 weeks	40 weeks	41 weeks	42 weeks and over	
	Number											
All races [3]	3,959,417	460,853	28,959	47,938	215,529	168,427	3,170,780	1,899,742	841,824	429,214	284,844	42,940
Less than 500 grams	5,912	5,698	5,440	233	23	2	10	8	1	1	1	203
500-999 grams	22,815	22,137	16,257	5,238	593	49	202	131	50	21	29	447
1,000-1,499 grams	28,750	26,632	3,933	15,314	6,863	522	1,409	1,044	241	124	217	492
1,500-1,999 grams	59,531	49,139	917	11,336	31,884	5,002	8,712	7,242	961	509	852	828
2,000-2,499 grams	184,175	94,895	668	4,222	61,262	28,743	81,960	67,564	9,839	4,557	5,188	2,132
2,500-2,999 grams	653,327	120,993	1,009	4,133	54,470	61,381	491,843	366,832	87,050	37,961	33,774	6,717
3,000-3,499 grams	1,470,019	92,800	-	4,827	38,342	49,631	1,257,225	791,477	318,043	147,705	105,555	14,439
3,500-3,999 grams	1,137,401	38,305	-	2,557	17,378	18,370	989,540	515,199	309,643	164,698	98,399	11,157
4,000-4,499 grams	332,863	7,777	-	-	3,862	3,915	287,930	128,154	98,697	61,079	33,845	3,311
4,500-4,999 grams	53,751	1,238	-	-	600	638	45,801	19,142	15,486	11,173	6,129	583
5,000 grams or more	6,069	191	-	-	98	93	5,059	2,305	1,525	1,229	728	91
Not stated	4,804	1,048	735	78	154	81	1,089	644	288	157	127	2,540
	Percent											
Very low birthweight [4]	1.5	11.8	90.8	43.4	3.5	0.3	0.1	0.1	0.0	0.0	0.1	2.8
Low birthweight [5]	7.6	43.2	96.4	75.9	46.7	20.4	2.9	4.0	1.3	1.2	2.2	10.2
	Number											
White, total	3,132,501	332,067	16,805	31,869	155,999	127,394	2,538,796	1,504,419	682,583	351,794	228,098	33,540
Less than 500 grams	3,272	3,130	2,974	138	16	2	4	4	-	-	-	138
500-999 grams	13,730	13,270	9,540	3,290	407	33	146	97	37	12	19	295
1,000-1,499 grams	19,022	17,613	2,458	10,186	4,628	341	918	684	154	80	144	347
1,500-1,999 grams	41,042	34,022	487	7,821	22,335	3,379	5,854	4,875	638	341	565	601
2,000-2,499 grams	128,495	67,794	356	2,732	44,232	20,474	55,758	46,090	6,549	3,119	3,451	1,492
2,500-2,999 grams	468,684	88,736	564	2,553	39,759	45,860	351,203	262,881	61,128	27,194	23,906	4,839
3,000-3,499 grams	1,150,762	69,428	-	3,185	27,593	38,650	988,174	622,576	249,290	116,308	81,830	11,330
3,500-3,999 grams	959,432	29,889	-	1,909	13,217	14,763	837,832	436,107	262,266	139,459	82,410	9,301
4,000-4,499 grams	291,799	6,356	-	-	3,113	3,243	253,017	111,877	87,146	53,994	29,600	2,826
4,500-4,999 grams	47,564	1,025	-	-	505	520	40,606	16,758	13,791	10,057	5,425	508
5,000 grams or more	5,238	146	-	-	76	70	4,377	1,944	1,341	1,092	642	73
Not stated	3,461	658	426	55	118	59	907	526	243	138	106	1,790
	Percent											
Very low birthweight [4]	1.2	10.3	91.4	42.8	3.2	0.3	0.0	0.1	0.0	0.0	0.1	2.5
Low birthweight [5]	6.6	41.0	96.6	76.0	45.9	19.0	2.5	3.4	1.1	1.0	1.8	9.0
	Number											
White, non-Hispanic	2,346,450	245,159	12,313	23,496	113,630	95,720	1,917,885	1,136,012	514,960	266,913	168,364	15,042
Less than 500 grams	2,365	2,314	2,192	107	14	1	1	1	-	-	-	50
500-999 grams	10,165	9,912	7,037	2,555	299	21	102	67	24	11	6	145
1,000-1,499 grams	14,481	13,561	1,801	7,898	3,596	266	654	489	109	56	101	165
1,500-1,999 grams	31,610	26,458	333	6,075	17,408	2,642	4,429	3,714	463	252	414	309
2,000-2,499 grams	96,992	52,336	260	1,894	34,383	15,799	41,454	34,494	4,700	2,260	2,475	727
2,500-2,999 grams	340,563	66,559	377	1,605	29,410	35,167	254,732	192,240	43,207	19,285	17,126	2,146
3,000-3,499 grams	842,394	48,504	-	2,031	17,758	28,715	730,674	463,169	182,308	85,197	58,495	4,721
3,500-3,999 grams	733,006	19,932	-	1,287	8,299	10,346	647,175	337,725	201,913	107,537	61,789	4,110
4,000-4,499 grams	230,650	4,313	-	-	2,017	2,296	201,937	88,958	69,778	43,201	23,083	1,317
4,500-4,999 grams	37,836	681	-	-	312	369	32,611	13,241	11,223	8,147	4,311	233
5,000 grams or more	3,987	94	-	-	48	46	3,376	1,476	1,045	855	480	37
Not stated	2,401	495	313	44	86	52	740	438	190	112	84	1,082
	Percent											
Very low birthweight [4]	1.2	10.5	91.9	45.0	3.4	0.3	0.0	0.0	0.0	0.0	0.1	2.6
Low birthweight [5]	6.6	42.7	96.9	79.0	49.1	19.6	2.4	3.4	1.0	1.0	1.8	10.0

See footnotes at end of table.

Table 43. Live births by birthweight and percent very low and low birthweight, by period of gestation and race and Hispanic origin of mother: United States, 1999 –Con.

Birthweight [1] and race and Hispanic origin of mother	All births	Period of gestation [2]										
		Preterm					Term				Postterm	Not stated
		Total under 37 weeks	Under 28 weeks	28-31 weeks	32-35 weeks	36 weeks	Total 37-41 weeks	37-39 weeks	40 weeks	41 weeks	42 weeks and over	
	Number											
Black, total	605,970	105,210	10,977	13,840	48,511	31,882	453,106	284,513	112,664	55,929	42,690	4,964
Less than 500 grams	2,424	2,359	2,267	86	6	-	6	4	1	1	1	58
500-999 grams	8,179	8,006	6,079	1,757	157	13	47	30	12	5	10	116
1,000-1,499 grams	8,403	7,819	1,301	4,484	1,881	153	416	306	71	39	71	97
1,500-1,999 grams	15,526	12,759	390	2,984	8,037	1,348	2,364	1,947	270	147	242	161
2,000-2,499 grams	44,790	22,145	291	1,305	13,946	6,603	20,785	16,959	2,628	1,198	1,444	416
2,500-2,999 grams	139,262	25,680	370	1,359	11,970	11,981	104,692	77,026	19,456	8,210	7,855	1,035
3,000-3,499 grams	229,798	18,363	-	1,367	8,567	8,429	191,785	120,100	48,784	22,901	18,100	1,550
3,500-3,999 grams	124,009	6,492	-	483	3,268	2,741	105,174	54,970	32,444	17,760	11,499	844
4,000-4,499 grams	27,907	1,053	-	-	557	496	23,731	11,189	7,749	4,793	2,923	200
4,500-4,999 grams	4,205	161	-	-	78	83	3,534	1,659	1,109	766	474	36
5,000 grams or more	554	31	-	-	15	16	453	245	113	95	56	14
Not stated	913	342	279	15	29	19	119	78	27	14	15	437
	Percent											
Very low birthweight [4]	3.1	17.3	90.2	45.8	4.2	0.5	0.1	0.1	0.1	0.1	0.2	6.0
Low birthweight [5]	13.1	50.6	96.5	76.8	49.6	25.5	5.2	6.8	2.6	2.5	4.1	18.7
	Number											
Black, non-Hispanic	588,981	103,034	10,799	13,602	47,484	31,149	439,816	276,706	109,057	54,053	41,462	4,669
Less than 500 grams	2,381	2,318	2,229	84	5	-	6	4	1	1	1	56
500-999 grams	8,059	7,891	5,988	1,737	153	13	47	30	12	5	10	111
1,000-1,499 grams	8,273	7,704	1,278	4,423	1,853	150	405	300	68	37	70	94
1,500-1,999 grams	15,217	12,512	380	2,934	7,880	1,318	2,313	1,905	264	144	238	154
2,000-2,499 grams	43,896	21,711	284	1,281	13,665	6,481	20,365	16,630	2,567	1,168	1,420	400
2,500-2,999 grams	135,952	25,123	363	1,332	11,727	11,701	102,175	75,197	18,950	8,028	7,661	993
3,000-3,499 grams	223,441	17,928	-	1,336	8,371	8,221	186,401	116,894	47,317	22,190	17,621	1,491
3,500-3,999 grams	119,685	6,308	-	464	3,180	2,664	101,467	53,117	31,254	17,096	11,109	801
4,000-4,499 grams	26,732	1,021	-	-	534	487	22,705	10,718	7,431	4,556	2,815	191
4,500-4,999 grams	4,030	155	-	-	74	81	3,388	1,606	1,058	724	452	35
5,000 grams or more	528	30	-	-	15	15	433	233	109	91	51	14
Not stated	787	333	277	11	27	18	111	72	26	13	14	329
	Percent											
Very low birthweight [4]	3.2	17.4	90.2	45.9	4.2	0.5	0.1	0.1	0.1	0.1	0.2	6.0
Low birthweight [5]	13.2	50.8	96.6	77.0	49.6	25.6	5.3	6.8	2.7	2.5	4.2	18.8
	Number											
Hispanic [6]	764,339	85,363	4,333	8,203	41,797	31,030	603,348	358,620	162,579	82,149	58,360	17,268
Less than 500 grams	828	747	712	31	3	1	3	3	-	-	-	78
500-999 grams	3,441	3,241	2,423	701	105	12	43	30	11	2	13	144
1,000-1,499 grams	4,437	3,964	651	2,219	1,020	74	260	193	45	22	41	172
1,500-1,999 grams	9,248	7,401	155	1,691	4,824	731	1,408	1,139	176	93	152	287
2,000-2,499 grams	30,734	15,068	97	818	9,621	4,532	13,979	11,322	1,816	841	955	732
2,500-2,999 grams	125,812	21,772	191	945	10,189	10,447	94,760	69,292	17,685	7,783	6,719	2,561
3,000-3,499 grams	301,243	20,677	-	1,156	9,768	9,753	251,365	155,566	65,380	30,419	22,894	6,307
3,500-3,999 grams	218,943	9,923	-	630	4,905	4,388	184,015	95,164	58,122	30,729	20,050	4,955
4,000-4,499 grams	58,553	2,017	-	-	1,108	909	48,813	21,984	16,600	10,229	6,285	1,438
4,500-4,999 grams	9,268	348	-	-	196	152	7,589	3,389	2,428	1,772	1,069	262
5,000 grams or more	1,209	51	-	-	27	24	963	457	272	234	160	35
Not stated	623	154	104	12	31	7	150	81	44	25	22	297
	Percent											
Very low birthweight [4]	1.1	9.3	89.5	36.0	2.7	0.3	0.1	0.1	0.0	0.0	0.1	2.3
Low birthweight [5]	6.4	35.7	95.5	66.7	37.3	17.2	2.6	3.5	1.3	1.2	2.0	8.3

- Quantity zero.
0.0 Quantity more than zero but less than 0.05.
1 Equivalents of the gram weights in pounds and ounces are shown in the Technical notes.
2 Expressed in completed weeks.
3 Includes races other than white and black and origin not stated.
4 Birthweight of less than 1,500 grams (3 lb 4 oz).
5 Birthweight of less than 2,500 grams (5 lb 8 oz).
6 Includes all persons of Hispanic origin of any race.

Table 44. Percent of live births very preterm and preterm and percent of live births of very low birthweight and low birthweight, by race and Hispanic origin of mother: United States, 1981-99

Year	Very preterm [1]						Preterm [2]					
		White		Black				White		Black		
	All races [3]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [4]	All races [3]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [4]
1999	1.96	1.57	1.54	4.13	4.18	1.68	11.8	10.7	10.5	17.5	17.6	11.4
1998	1.96	1.57	1.52	4.11	4.15	1.72	11.6	10.5	10.2	17.5	17.6	11.4
1997	1.94	1.53	1.49	4.17	4.19	1.68	11.4	10.2	9.9	17.5	17.6	11.2
1996	1.89	1.48	1.43	4.13	4.17	1.66	11.0	9.8	9.5	17.4	17.5	10.9
1995	1.89	1.46	1.41	4.25	4.29	1.66	11.0	9.7	9.4	17.7	17.8	10.9
1994	1.91	1.45	1.39	4.32	4.36	1.67	11.0	9.6	9.3	18.1	18.2	10.9
1993	1.93	1.45	1.39	4.41	4.45	1.67	11.0	9.5	9.1	18.5	18.6	11.0
1992 [7]	1.91	1.40	1.33	4.47	4.50	1.64	10.7	9.1	8.7	18.4	18.5	10.7
1991 [7]	1.94	1.41	1.35	4.62	4.65	1.65	10.8	9.1	8.7	18.9	19.0	11.0
1990 [8]	1.92	1.39	1.33	4.61	4.63	1.69	10.6	8.9	8.5	18.8	18.9	11.0
1989 [9]	1.95	1.41	1.34	4.64	4.68	1.76	10.6	8.8	8.4	18.9	19.0	11.1
1988	1.96	1.42	---	4.72	---	---	10.2	8.5	---	18.7	---	---
1987	1.96	1.44	---	4.61	---	---	10.2	8.5	---	18.4	---	---
1986	1.90	1.41	---	4.47	---	---	10.0	8.4	---	18.0	---	---
1985	1.88	1.42	---	4.37	---	---	9.8	8.2	---	17.8	---	---
1984	1.83	1.38	---	4.22	---	---	9.4	7.9	---	17.1	---	---
1983	1.86	1.40	---	4.34	---	---	9.6	8.0	---	17.7	---	---
1982	1.84	1.40	---	4.22	---	---	9.5	8.0	---	17.4	---	---
1981	1.81	1.37	---	4.13	---	---	9.4	7.9	---	17.3	---	---

Year	Very low birthweight [5]						Low birthweight [6]					
		White		Black				White		Black		
	All races [3]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [4]	All races [3]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [4]
1999	1.45	1.15	1.15	3.14	3.18	1.14	7.6	6.6	6.6	13.1	13.2	6.4
1998	1.45	1.15	1.15	3.08	3.11	1.15	7.6	6.5	6.6	13.0	13.2	6.4
1997	1.42	1.13	1.12	3.04	3.05	1.13	7.5	6.5	6.5	13.0	13.1	6.4
1996	1.37	1.09	1.08	2.99	3.02	1.12	7.4	6.3	6.4	13.0	13.1	6.3
1995	1.35	1.06	1.04	2.97	2.98	1.11	7.3	6.2	6.2	13.1	13.2	6.3
1994	1.33	1.02	1.01	2.96	2.99	1.08	7.3	6.1	6.1	13.2	13.3	6.2
1993	1.33	1.01	1.00	2.96	2.99	1.06	7.2	6.0	5.9	13.3	13.4	6.2
1992 [7]	1.29	0.96	0.94	2.96	2.97	1.04	7.1	5.8	5.7	13.3	13.4	6.1
1991 [7]	1.29	0.96	0.94	2.96	2.97	1.02	7.1	5.8	5.7	13.6	13.6	6.1
1990 [8]	1.27	0.95	0.93	2.92	2.93	1.03	7.0	5.7	5.6	13.3	13.3	6.1
1989 [9]	1.28	0.95	0.93	2.95	2.97	1.05	7.0	5.7	5.6	13.5	13.6	6.2
1988	1.24	0.93	---	2.86	---	---	6.9	5.7	---	13.3	---	---
1987	1.24	0.94	---	2.79	---	---	6.9	5.7	---	13.0	---	---
1986	1.21	0.93	---	2.73	---	---	6.8	5.7	---	12.8	---	---
1985	1.21	0.93	---	2.71	---	---	6.8	5.7	---	12.6	---	---
1984	1.19	0.93	---	2.60	---	---	6.7	5.6	---	12.6	---	---
1983	1.19	0.92	---	2.60	---	---	6.8	5.7	---	12.8	---	---
1982	1.18	0.91	---	2.56	---	---	6.8	5.6	---	12.6	---	---
1981	1.16	0.91	---	2.52	---	---	6.8	5.7	---	12.7	---	---

--- Data not available.
1 Births of less than 32 completed weeks of gestation.
2 Births of less than 37 completed weeks of gestation.
3 Includes races other than white and black and origin not stated.
4 Includes all persons of Hispanic origin of any race.
5 Less than 1,500 grams (3 lb. 4 oz.).
6 Less than 2,500 grams (5 lb. 8 oz.).
7 Data by Hispanic origin exclude New Hampshire, which did not report Hispanic origin.
8 Data by Hispanic origin exclude New Hampshire and Oklahoma, which did not report Hispanic origin.
9 Data by Hispanic origin exclude New Hampshire, Oklahoma, and Louisiana, which did not report Hispanic origin.

Table 45. Number and percent low birthweight and number of live births by birthweight, by age and race and Hispanic origin of mother: United States, 1999

Age and race and Hispanic origin of mother	Low birthweight [1]		Birthweight [2]												
	Number	Percent	Total	Less than 500 grams	500-999 grams	1,000-1,499 grams	1,500-1,999 grams	2,000-2,499 grams	2,500-2,999 grams	3,000-3,499 grams	3,500-3,999 grams	4,000-4,499 grams	4,500-4,999 grams	5,000-grams or more	Not stated
All races [3]															
All ages	301,183	7.6	3,959,417	5,912	22,815	28,750	59,531	184,175	653,327	1,470,019	1,137,401	332,863	53,751	6,069	4,804
Under 15 years	1,161	12.9	9,054	27	126	140	212	656	2,169	3,642	1,755	276	30	1	20
15-19 years	45,604	9.6	476,050	861	3,577	4,289	8,542	28,335	102,468	191,079	109,812	23,383	2,791	289	624
15 years	2,611	11.4	22,896	42	233	262	525	1,549	5,573	9,234	4,563	804	72	5	34
16 years	5,460	10.6	51,516	110	470	519	966	3,395	11,646	20,723	11,220	2,139	243	28	57
17 years	8,937	10.0	89,176	175	725	811	1,681	5,545	19,679	35,971	19,954	4,014	455	39	127
18 years	12,847	9.6	133,988	230	962	1,207	2,415	8,033	28,760	54,036	30,695	6,614	788	73	175
19 years	15,749	8.8	178,474	304	1,187	1,490	2,955	9,813	36,810	71,115	43,380	9,812	1,233	144	231
20-24 years	74,294	7.6	981,929	1,483	5,479	6,614	13,787	46,931	179,377	383,073	265,074	67,981	9,918	1,041	1,171
25-29 years	72,455	6.7	1,078,252	1,430	5,491	6,778	14,300	44,456	164,320	399,715	325,737	97,453	15,667	1,669	1,236
30-34 years	62,184	7.0	892,400	1,227	4,807	6,151	12,729	37,270	126,360	315,460	279,369	90,599	15,602	1,801	1,025
35-39 years	36,328	8.4	434,294	715	2,672	3,812	7,857	21,272	64,576	148,173	130,951	44,643	8,018	1,025	580
40-44 years	8,364	10.1	83,090	158	606	884	1,874	4,842	13,242	27,609	23,655	8,209	1,639	234	138
45-54 years	793	18.3	4,348	11	57	82	230	413	815	1,268	1,048	319	86	9	10
White, total															
All ages	205,561	6.6	3,132,501	3,272	13,730	19,022	41,042	128,495	468,684	1,150,762	959,432	291,799	47,564	5,238	3,461
Under 15 years	512	10.8	4,739	15	58	66	92	281	961	1,977	1,075	185	18	-	11
15-19 years	27,488	8.1	337,888	418	1,925	2,563	5,086	17,496	66,027	136,706	85,483	19,189	2,327	245	423
15 years	1,376	9.7	14,193	20	119	139	264	834	3,077	5,842	3,206	609	53	5	25
16 years	3,111	9.0	34,649	54	243	301	542	1,971	7,086	14,053	8,428	1,709	198	23	41
17 years	5,375	8.6	62,782	96	392	484	1,017	3,386	12,616	25,626	15,400	3,274	384	30	77
18 years	7,926	8.2	96,254	96	532	722	1,462	5,114	18,934	39,053	24,046	5,439	668	62	126
19 years	9,700	7.5	130,010	152	639	917	1,801	6,191	24,314	52,132	34,403	8,158	1,024	125	154
20-24 years	47,931	6.4	748,371	749	3,090	4,087	8,891	31,114	124,436	291,122	216,757	57,897	8,538	891	799
25-29 years	51,081	5.9	873,654	754	3,397	4,611	10,177	32,142	121,524	319,795	278,857	86,189	13,889	1,431	888
30-34 years	45,567	6.2	739,948	752	3,132	4,376	9,483	27,824	96,025	257,445	243,271	81,211	14,093	1,566	770
35-39 years	26,313	7.4	356,959	465	1,698	2,642	5,761	15,747	49,135	120,523	112,881	39,614	7,154	887	452
40-44 years	6,035	9.0	67,419	109	386	617	1,376	3,547	9,921	22,195	20,234	7,244	1,468	211	111
45-54 years	634	18.0	3,523	10	44	60	176	344	655	999	874	270	77	7	7
White, non-Hispanic															
All ages	155,613	6.6	2,346,450	2,365	10,165	14,481	31,610	96,992	340,563	842,394	733,006	230,650	37,836	3,987	2,401
Under 15 years	233	11.4	2,048	5	24	35	41	128	396	802	501	103	11	-	2
15-19 years	17,821	8.4	212,923	288	1,263	1,711	3,466	11,093	40,085	83,506	55,899	13,489	1,692	177	254
15 years	741	10.7	6,963	11	74	77	170	409	1,387	2,732	1,704	344	35	3	17
16 years	1,737	9.2	18,886	34	135	175	324	1,069	3,659	7,357	4,856	1,104	133	18	22
17 years	3,323	8.8	37,671	65	257	320	663	2,018	7,244	14,881	9,651	2,226	281	20	45
18 years	5,290	8.5	62,282	70	351	496	1,021	3,352	11,844	24,575	16,102	3,866	491	40	74
19 years	6,730	7.7	87,121	108	446	643	1,288	4,245	15,951	33,961	23,586	5,949	752	96	96
20-24 years	33,979	6.6	514,386	517	2,173	2,937	6,329	22,023	83,875	195,076	151,514	42,406	6,389	624	523
25-29 years	39,482	6.0	663,569	556	2,566	3,625	7,916	24,819	90,863	238,676	214,243	67,616	10,973	1,086	630
30-34 years	37,067	6.2	600,830	549	2,491	3,500	7,824	22,703	76,756	206,647	199,409	67,560	11,587	1,232	572
35-39 years	21,566	7.3	294,590	352	1,319	2,132	4,731	13,032	40,044	98,851	93,972	33,206	5,914	698	339
40-44 years	4,911	8.9	55,175	89	293	492	1,141	2,896	7,996	18,028	16,750	6,045	1,201	167	75
45-54 years	554	19.0	2,929	9	36	49	162	298	548	808	718	225	67	3	5

See footnotes at end of table

Table 45. Number and percent low birthweight and number of live births by birthweight, by age and race and Hispanic origin of mother: United States, 1999—Con.

Age and race and Hispanic origin of mother	Low birthweight [1]		Birthweight [2]											
	Number	Percent	Total	Less than 500 grams	500-999 grams	1,000-1,499 grams	1,500-1,999 grams	2,000-2,499 grams	2,500-2,999 grams	3,000-3,499 grams	3,500-3,999 grams	4,000-4,499 grams	4,500-4,999 grams	5,000- grams or more	Not stated
Black, total															
All ages	79,322	13.1	605,970	2,424	8,179	8,403	15,526	44,790	139,262	229,798	124,009	27,907	4,205	554	913
Under 15 years	613	15.4	3,977	12	65	70	110	356	1,129	1,539	601	79	9	1	6
15-19 years	16,537	13.7	121,166	424	1,540	1,597	3,171	9,805	32,566	47,747	20,458	3,322	350	34	152
15 years	1,132	14.4	7,865	22	108	112	238	652	2,300	3,076	1,173	163	13	-	8
16 years	2,157	14.4	14,942	52	210	205	398	1,292	4,112	5,933	2,348	341	35	4	12
17 years	3,231	14.0	23,112	75	312	300	604	1,940	6,325	9,065	3,821	575	50	7	38
18 years	4,496	13.7	32,948	128	400	446	871	2,651	8,714	13,096	5,571	932	96	8	35
19 years	5,521	13.1	42,299	147	510	534	1,060	3,270	11,115	16,577	7,545	1,311	156	15	59
20-24 years	23,440	12.1	193,211	698	2,225	2,296	4,408	13,813	46,330	75,686	38,631	7,736	998	107	283
25-29 years	16,967	12.2	138,868	617	1,973	1,855	3,354	9,268	28,944	52,639	31,165	7,518	1,240	163	232
30-34 years	12,412	13.6	91,486	419	1,446	1,421	2,476	6,650	18,353	32,986	20,765	5,689	967	159	155
35-39 years	7,536	16.0	47,277	211	834	940	1,607	3,944	9,756	15,932	10,359	3,015	533	77	69
40-44 years	1,728	18.1	9,564	42	187	207	372	920	2,096	3,140	1,944	523	103	13	15
45-54 years	89	21.2	421	1	9	17	28	34	86	129	86	25	5	-	1
Black, non-Hispanic															
All ages	77,826	13.2	588,981	2,381	8,059	8,273	15,217	43,896	135,952	223,441	119,685	26,732	4,030	528	787
Under 15 years	602	15.5	3,890	12	65	69	108	348	1,101	1,506	587	79	9	1	5
15-19 years	16,256	13.8	118,285	419	1,519	1,577	3,120	9,621	31,869	46,545	19,902	3,204	335	32	142
15 years	1,111	14.4	7,698	22	106	111	234	638	2,253	3,009	1,145	159	13	-	8
16 years	2,113	14.5	14,573	52	205	202	392	1,262	4,008	5,792	2,283	327	35	4	11
17 years	3,168	14.1	22,580	75	308	298	593	1,894	6,202	8,845	3,719	556	48	7	35
18 years	4,428	13.8	32,155	127	394	440	854	2,613	8,516	12,770	5,413	893	94	7	34
19 years	5,436	13.2	41,279	143	506	526	1,047	3,214	10,890	16,129	7,342	1,269	145	14	54
20-24 years	23,032	12.3	188,247	685	2,198	2,260	4,321	13,568	45,338	73,755	37,400	7,422	951	100	249
25-29 years	16,687	12.4	134,784	610	1,847	1,827	3,297	9,106	28,214	51,119	30,005	7,218	1,189	156	196
30-34 years	12,107	13.7	88,403	407	1,417	1,391	2,424	6,468	17,845	31,927	19,909	5,408	925	153	129
35-39 years	7,380	16.2	45,746	208	822	928	1,563	3,859	9,477	15,425	9,939	2,881	516	73	55
40-44 years	1,679	18.2	9,223	39	182	204	360	894	2,028	3,040	1,857	495	100	13	11
45-54 years	83	20.6	403	1	9	17	24	32	80	124	86	25	5	-	-
Hispanic [4]															
All ages	48,688	6.4	764,339	828	3,441	4,437	9,248	30,734	125,812	301,243	218,943	58,553	9,268	1,209	623
Under 15 years	278	10.2	2,725	9	33	31	52	153	582	1,190	579	81	7	-	8
15-19 years	9,635	7.7	124,677	126	651	854	1,621	6,383	26,008	53,234	29,375	5,622	624	67	112
15 years	641	8.8	7,288	9	43	64	96	429	1,717	3,128	1,510	266	18	2	6
16 years	1,380	8.7	15,828	19	109	128	216	908	3,459	6,735	3,563	607	65	5	14
17 years	2,060	8.2	25,113	30	133	166	353	1,378	5,384	10,769	5,726	1,042	98	10	24
18 years	2,618	7.8	33,806	24	174	222	451	1,747	7,084	14,471	7,868	1,541	174	20	30
19 years	2,936	6.9	42,642	44	192	274	505	1,921	8,364	18,131	10,708	2,166	269	30	38
20-24 years	13,814	6.0	231,475	223	889	1,136	2,549	9,017	40,392	95,124	64,412	15,202	2,074	262	195
25-29 years	11,254	5.5	203,985	183	808	967	2,199	7,097	29,990	79,125	62,480	17,837	2,810	333	156
30-34 years	8,115	6.2	131,369	176	609	842	1,602	4,886	18,358	48,196	41,169	12,774	2,342	322	93
35-39 years	4,457	7.7	58,146	90	353	481	981	2,552	8,563	20,316	17,534	5,894	1,155	180	47
40-44 years	1,064	9.3	11,440	20	92	118	229	605	1,823	3,891	3,256	1,108	246	41	11
45-54 years	71	13.6	522	1	6	8	15	41	96	167	138	35	10	4	1

Quantity zero.
[1] Less than 2,500 grams (5 lb 8 oz).
[2] Equivalents of gram weights in terms of pounds and ounces are shown in Technical notes.
[3] Includes races other than white and black and origin not stated.
[4] Includes all persons of Hispanic origin of any race.

Table 46. Number and percent of births of low birthweight by race and Hispanic origin of mother:United States, each State and territory, 1999

[By place of residence. Low birthweight is birthweight of less than 2,500 grams (5 lb 8 oz)]

State	Number						Percent					
		White		Black				White		Black		
	All races [1]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [2]	All races [1]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [2]
United States [3]	301,183	205,561	155,613	79,322	77,826	48,688	7.6	6.6	6.6	13.1	13.2	6.4
Alabama	5,787	3,048	2,947	2,690	2,686	105	9.3	7.3	7.3	13.6	13.6	6.6
Alaska	577	348	317	46	43	39	5.8	5.3	5.2	10.5	10.1	6.6
Arizona	5,575	4,685	2,533	330	319	2,147	6.9	6.6	6.5	12.1	12.3	6.7
Arkansas	3,161	2,106	1,991	995	993	115	8.6	7.4	7.5	13.0	13.0	5.9
California	31,714	23,372	9,575	4,145	4,052	13,805	6.1	5.5	5.6	11.7	11.8	5.5
Colorado	5,184	4,542	3,238	399	391	1,329	8.3	8.0	8.0	13.8	14.0	8.2
Connecticut	3,294	2,467	1,772	702	669	574	7.6	6.8	6.3	13.1	13.4	9.1
Delaware	918	526	466	368	368	60	8.6	6.8	6.8	13.8	13.9	7.0
District of Columbia	987	141	94	831	823	48	13.1	6.4	6.7	16.1	16.1	6.1
Florida	16,096	10,132	7,552	5,513	5,426	2,669	8.2	6.9	7.1	12.2	12.3	6.4
Georgia	11,027	5,426	4,777	5,366	5,299	607	8.7	6.7	6.8	12.7	12.8	5.8
Hawaii	1,280	217	172	45	43	175	7.6	5.4	5.2	9.8	10.1	8.0
Idaho	1,226	1,165	1,019	8	8	141	6.2	6.1	6.1	*	*	6.0
Illinois	14,567	9,093	6,746	4,858	4,839	2,359	8.0	6.5	6.5	14.2	14.2	6.4
Indiana	6,728	5,439	5,137	1,192	1,190	281	7.9	7.2	7.3	12.9	12.9	6.5
Iowa	2,314	2,080	1,946	147	141	105	6.2	5.9	5.9	12.6	12.6	5.7
Kansas	2,750	2,309	2,024	348	348	264	7.1	6.7	6.7	12.2	12.3	6.2
Kentucky	4,466	3,727	3,668	695	689	60	8.2	7.6	7.7	14.0	14.0	6.3
Louisiana	6,704	2,664	2,574	3,941	3,921	96	10.0	6.9	7.0	14.5	14.5	6.2
Maine	818	792	757	12	10	4	6.0	6.0	6.1	*	*	*
Maryland	6,495	2,989	2,708	3,271	3,252	294	9.0	6.7	6.7	13.5	13.5	7.2
Massachusetts	5,693	4,475	3,848	886	770	720	7.1	6.6	6.4	10.9	11.8	8.2
Michigan	10,655	6,811	5,829	3,496	3,462	416	8.0	6.5	6.4	14.6	14.7	6.7
Minnesota	4,009	3,219	2,899	440	432	199	6.1	5.6	5.7	11.0	11.0	6.0
Mississippi	4,412	1,673	1,641	2,682	2,681	28	10.3	7.4	7.4	13.8	13.8	6.2
Missouri	5,831	4,180	4,046	1,546	1,542	132	7.7	6.7	6.7	13.7	13.7	5.8
Montana	738	642	622	3	3	16	6.8	6.8	6.9	*	*	*
Nebraska	1,610	1,380	1,199	163	163	152	6.7	6.4	6.4	12.9	13.0	6.6
Nevada	2,220	1,757	1,178	272	266	566	7.6	7.0	7.6	12.4	12.6	6.1
New Hampshire	869	840	756	16	16	26	6.2	6.2	5.9	*	*	7.3
New Jersey	9,299	5,800	4,338	2,818	2,675	1,539	8.2	6.9	6.7	13.4	14.0	7.2
New Mexico	2,080	1,738	702	61	59	1,051	7.7	7.6	7.7	12.3	12.8	7.6
New York	20,038	12,411	8,088	6,249	5,757	4,002	7.8	6.8	6.5	11.7	12.1	7.6
North Carolina	10,089	5,832	5,211	3,900	3,883	632	8.9	7.2	7.3	13.7	13.7	6.4
North Dakota	474	421	408	2	2	4	6.2	6.2	6.3	*	*	*
Ohio	12,006	8,784	8,529	3,019	2,940	255	7.9	6.9	6.9	13.7	13.7	7.5
Oklahoma	3,598	2,708	2,446	545	525	230	7.4	7.0	7.2	11.9	11.8	5.9
Oregon	2,430	2,185	1,811	97	95	359	5.4	5.3	5.3	10.7	10.8	5.2
Pennsylvania	11,489	8,281	7,610	2,900	2,856	654	7.9	6.8	6.7	14.3	14.3	9.1
Rhode Island	900	734	490	110	99	133	7.3	6.8	6.7	11.3	11.7	7.1
South Carolina	5,402	2,524	2,437	2,806	2,800	95	9.8	7.2	7.3	14.7	14.7	5.5
South Dakota	619	511	503	10	10	9	5.9	5.9	5.9	*	*	*
Tennessee	7,148	4,713	4,554	2,335	2,332	161	9.2	7.9	7.9	14.2	14.2	6.6
Texas	25,696	19,787	9,301	5,042	4,978	10,461	7.4	6.6	6.7	12.6	12.6	6.6
Utah	3,155	2,960	2,587	36	36	364	6.8	6.7	6.7	13.6	14.2	6.7
Vermont	371	365	352	3	3	2	5.7	5.7	5.6	*	*	*
Virginia	7,389	4,394	4,020	2,665	2,659	381	7.8	6.4	6.5	12.0	12.1	5.8
Washington	4,578	3,685	2,979	344	308	542	5.8	5.5	5.4	10.4	10.2	5.3
West Virginia	1,663	1,558	1,553	92	92	5	8.0	7.9	7.9	12.3	12.4	*
Wisconsin	4,542	3,459	3,226	871	861	247	6.7	5.9	5.9	13.4	13.4	6.1
Wyoming	512	466	437	11	11	30	8.4	8.1	8.4	*	*	5.7
Puerto Rico	6,789	6,220	---	568	---	---	11.4	11.4	---	11.4	---	---
Virgin Islands	168	32	4	132	118	40	10.1	10.3	*	10.3	10.3	13.3
Guam	314	7	7	4	4	1	7.8	*	*	*	*	*
American Samoa	62	-	---	-	---	---	3.6	*	---	*	---	---
Northern Marianas	107	2	---	-	---	---	8.2	*	---	*	---	---

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
--- Data not available.
- Quantity zero.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Excludes data for the territories.

Table 47. Number and percent of births of very low birthweight by race and Hispanic origin of mother: United States, each State and territory, 1999

[By place of residence. Very low birthweight is birthweight of less than 1,500 grams (3 lb 4 oz)]

State	Number						Percent					
		White		Black				White		Black		
	All races [1]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [2]	All races [1]	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic [2]
United States [3]	57,477	36,024	27,011	19,006	18,713	8,706	1.5	1.2	1.2	3.1	3.2	1.1
Alabama	1,251	570	555	669	669	15	2.0	1.4	1.4	3.4	3.4	*
Alaska	100	66	61	9	8	8	1.0	1.0	1.0	*	*	*
Arizona	875	724	393	72	69	325	1.1	1.0	1.0	2.6	2.7	1.0
Arkansas	596	365	351	226	226	14	1.6	1.3	1.3	2.9	3.0	*
California	5,937	4,252	1,675	1,035	1,016	2,557	1.1	1.0	1.0	2.9	3.0	1.0
Colorado	762	661	464	78	75	203	1.2	1.2	1.1	2.7	2.7	1.2
Connecticut	683	495	330	177	171	129	1.6	1.4	1.2	3.3	3.4	2.0
Delaware	205	105	87	95	95	18	1.9	1.4	1.3	3.6	3.6	*
District of Columbia	253	27	16	225	225	10	3.4	1.2	*	4.4	4.4	*
Florida	3,192	1,805	1,340	1,333	1,318	473	1.6	1.2	1.3	3.0	3.0	1.1
Georgia	2,139	887	784	1,216	1,201	97	1.7	1.1	1.1	2.9	2.9	0.9
Hawaii	210	42	35	10	9	20	1.2	1.1	1.1	*	*	0.9
Idaho	213	201	175	4	4	25	1.1	1.0	1.0	*	*	1.1
Illinois	3,004	1,691	1,183	1,202	1,194	510	1.7	1.2	1.1	3.5	3.5	1.4
Indiana	1,243	951	893	278	277	59	1.5	1.3	1.3	3.0	3.0	1.4
Iowa	417	378	347	28	28	20	1.1	1.1	1.0	2.4	2.5	1.1
Kansas	499	415	362	72	72	49	1.3	1.2	1.2	2.5	2.6	1.1
Kentucky	838	674	663	162	161	9	1.5	1.4	1.4	3.3	3.3	*
Louisiana	1,378	445	431	921	920	18	2.1	1.2	1.2	3.4	3.4	*
Maine	147	139	138	3	3	-	1.1	1.1	1.1	*	*	*
Maryland	1,412	490	446	885	884	48	2.0	1.1	1.1	3.6	3.7	1.2
Massachusetts	1,102	819	690	234	212	137	1.4	1.2	1.1	2.9	3.2	1.6
Michigan	2,181	1,250	1,060	879	867	68	1.6	1.2	1.2	3.7	3.7	1.1
Minnesota	720	568	515	110	108	40	1.1	1.0	1.0	2.7	2.8	1.2
Mississippi	903	316	310	575	575	6	2.1	1.4	1.4	3.0	3.0	*
Missouri	1,145	739	718	390	387	21	1.5	1.2	1.2	3.5	3.4	0.9
Montana	121	95	92	1	1	3	1.1	1.0	1.0	*	*	*
Nebraska	291	246	214	37	37	26	1.2	1.1	1.1	2.9	2.9	1.1
Nevada	325	235	149	57	56	85	1.1	0.9	1.0	2.6	2.6	0.9
New Hampshire	165	158	127	2	2	8	1.2	1.2	1.0	*	*	*
New Jersey	2,003	1,170	849	739	713	317	1.8	1.4	1.3	3.5	3.7	1.5
New Mexico	315	259	106	6	6	159	1.2	1.1	1.2	*	*	1.2
New York	3,918	2,217	1,389	1,511	1,422	788	1.5	1.2	1.1	2.8	3.0	1.5
North Carolina	2,161	1,118	990	971	968	130	1.9	1.4	1.4	3.4	3.4	1.3
North Dakota	73	64	60	-	-	3	1.0	0.9	0.9	*	*	*
Ohio	2,241	1,525	1,479	693	680	46	1.5	1.2	1.2	3.1	3.2	1.3
Oklahoma	602	432	397	117	114	33	1.2	1.1	1.2	2.6	2.6	0.8
Oregon	420	379	314	15	15	64	0.9	0.9	0.9	*	*	0.9
Pennsylvania	2,274	1,548	1,427	688	675	112	1.6	1.3	1.3	3.4	3.4	1.6
Rhode Island	182	141	89	26	22	31	1.5	1.3	1.2	2.7	2.6	1.7
South Carolina	1,107	434	421	664	663	14	2.0	1.2	1.3	3.5	3.5	*
South Dakota	107	84	83	3	3	1	1.0	1.0	1.0	*	*	*
Tennessee	1,255	699	675	535	535	25	1.6	1.2	1.2	3.2	3.2	1.0
Texas	4,511	3,255	1,539	1,140	1,126	1,714	1.3	1.1	1.1	2.8	2.9	1.1
Utah	514	486	427	7	7	55	1.1	1.1	1.1	*	*	1.0
Vermont	69	67	62	-	-	-	1.1	1.0	1.0	*	*	*
Virginia	1,484	803	732	632	632	70	1.6	1.2	1.2	2.9	2.9	1.1
Washington	742	583	460	68	61	94	0.9	0.9	0.8	2.1	2.0	0.9
West Virginia	271	246	246	21	21	-	1.3	1.2	1.3	2.8	2.8	*
Wisconsin	859	645	607	183	178	44	1.3	1.1	1.1	2.8	2.8	1.1
Wyoming	62	60	55	2	2	5	1.0	1.0	1.1	*	*	*
Puerto Rico	787	725	---	61	---	---	1.3	1.3	---	1.2	---	---
Virgin Islands	41	4	-	37	34	6	2.5	*	*	2.9	3.0	*
Guam	26	1	1	1	1	-	0.6	*	*	*	*	*
American Samoa	8	-	---	-	---	---	*	*	---	*	---	---
Northern Marianas	14	1	---	-	---	---	*	*	---	*	---	---

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
- Quantity zero.
--- Data not available.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Excludes data for the territories.

Table 48. Live births with selected abnormal conditions of the newborn and rates by age of mother, by race of mother: United States, 1999

[Rates are number of live births with specified abnormal condition per 1,000 live births in specified group]

Abnormal condition and race of mother	All births [1]	Abnormal condition reported	Age of mother							Not stated [2]
			All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
All races [3]										
Anemia	3,959,417	4,191	1.1	1.1	1.0	1.0	1.1	1.2	1.4	100,783
Birth injury [4]	3,586,265	9,980	2.9	2.8	2.9	3.0	2.8	2.9	2.5	103,435
Fetal alcohol syndrome [5]	3,891,209	148	0.0	*	0.0	0.0	0.0	0.1	*	101,892
Hyaline membrane disease/RDS	3,959,417	24,147	6.3	6.9	6.3	6.1	6.0	6.4	7.3	100,783
Meconium aspiration syndrome	3,959,417	7,681	2.0	2.2	2.1	1.9	1.8	2.0	2.1	100,783
Assisted ventilation less than 30 minutes [6]	3,840,078	79,898	21.4	21.9	20.6	21.3	21.5	22.3	23.8	109,831
Assisted ventilation 30 minutes or longer [6]	3,840,078	36,712	9.8	11.2	9.5	9.1	9.6	10.8	13.3	109,831
Seizures	3,959,417	2,102	0.5	0.6	0.6	0.5	0.5	0.5	0.6	100,783
White										
Anemia	3,132,501	3,095	1.0	1.0	1.0	1.0	1.0	1.1	1.4	75,931
Birth injury [4]	2,812,735	8,230	3.0	3.0	3.1	3.1	2.9	2.9	2.5	78,079
Fetal alcohol syndrome [5]	3,073,731	80	0.0	*	*	0.0	*	*	*	76,973
Hyaline membrane disease/RDS	3,132,501	19,406	6.3	7.1	6.4	6.2	6.0	6.4	7.2	75,931
Meconium aspiration syndrome	3,132,501	5,534	1.8	2.1	1.9	1.8	1.7	1.8	2.0	75,931
Assisted ventilation less than 30 minutes [6]	3,065,587	65,053	21.8	22.3	20.9	21.8	21.8	22.9	24.4	83,194
Assisted ventilation 30 minutes or longer [6]	3,065,587	28,407	9.5	10.8	9.1	8.9	9.3	10.5	13.0	83,194
Seizures	3,132,501	1,638	0.5	0.6	0.5	0.5	0.5	0.5	0.6	75,931
Black										
Anemia	605,970	869	1.5	1.4	1.3	1.5	1.5	2.3	2.1	13,771
Birth injury [4]	564,605	955	1.7	1.7	1.7	1.8	1.7	1.9	*	14,083
Fetal alcohol syndrome [5]	599,465	50	0.1	*	*	*	0.2	*	*	13,818
Hyaline membrane disease/RDS	605,970	3,926	6.6	6.5	6.3	6.3	7.0	7.8	10.5	13,771
Meconium aspiration syndrome	605,970	1,689	2.9	2.6	2.7	2.9	3.1	3.4	3.1	13,771
Assisted ventilation less than 30 minutes [6]	567,257	10,942	19.8	20.0	19.4	19.4	20.7	20.3	22.1	14,724
Assisted ventilation 30 minutes or longer [6]	567,257	6,754	12.2	12.1	11.0	11.9	13.2	16.0	18.3	14,724
Seizures	605,970	368	0.6	0.6	0.6	0.6	0.6	0.6	*	13,771

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
0.0 Quantity more than zero but less than 0.05.
1 Total number of births to residents of areas reporting specified condition.
2 No response reported for the abnormal conditions item.
3 Includes races other than white and black.
4 Nebraska and Texas do not report this condition.
5 Wisconsin does not report this condition.
6 New York City does not report this condition.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

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Table 49. Live births with selected congenital anomalies and rates by age of mother, by race of mother: Total of 49 reporting States and the District of Columbia, 1999

[Rates are number of live births with specified congenital anomaly per 100,000 live births in specified group]

Congenital anomaly and race of mother	All births [1]	Congenital anomaly reported	Age of mother							Not stated [2]
			All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
All races [3]										
Anencephalus	3,932,226	423	11.0	13.1	10.1	12.0	8.6	12.0	*	73,470
Spina bifida/Meningocele	3,932,226	776	20.1	21.4	20.8	21.8	17.2	17.5	27.0	73,470
Hydrocephalus	3,932,226	831	21.5	27.1	22.1	21.1	19.4	18.7	25.9	73,470
Microcephalus	3,932,226	229	5.9	5.9	6.2	5.0	5.7	8.0	*	73,470
Other central nervous system anomalies	3,932,226	772	20.0	24.6	21.1	18.6	16.8	22.0	*	73,470
Heart malformations	3,932,226	4,624	119.8	99.5	113.0	113.6	118.6	156.3	217.4	73,470
Other circulatory/respiratory anomalies	3,932,226	5,426	140.6	149.7	138.2	128.4	138.5	160.6	191.6	73,470
Rectal atresia/stenosis	3,932,226	348	9.0	8.7	9.3	8.2	8.6	10.4	*	73,470
Tracheo-esophageal fistula/Esophageal atresia	3,932,226	513	13.3	14.0	11.4	11.2	14.0	17.5	28.2	73,470
Omphalocele/Gastroschisis	3,932,226	1,164	30.2	73.6	39.9	19.9	14.5	19.6	*	73,470
Other gastrointestinal anomalies	3,932,226	1,150	29.8	34.1	29.2	26.7	27.8	35.4	43.5	73,470
Malformed genitalia	3,932,226	2,946	76.3	76.3	74.4	76.3	77.0	80.3	72.9	73,470
Renal agenesis	3,932,226	528	13.7	14.4	14.2	13.0	14.5	11.1	*	73,470
Other urogenital anomalies	3,932,226	3,822	99.0	91.2	94.4	98.5	106.3	103.2	106.9	73,470
Cleft lip/palate	3,932,226	3,123	80.9	83.6	87.6	80.2	72.7	79.1	94.0	73,470
Polydactyly/Syndactyly/Adactyly	3,932,226	3,392	87.9	115.2	104.2	79.9	69.6	79.1	84.6	73,470
Clubfoot	3,932,226	2,150	55.7	65.3	58.8	53.7	48.2	56.4	65.8	73,470
Diaphragmatic hernia	3,932,226	504	13.1	12.1	14.6	12.1	13.8	12.0	*	73,470
Other musculoskeletal/integumental anomalies	3,932,226	9,258	239.9	251.1	237.4	225.9	240.2	260.0	277.3	73,470
Down's syndrome	3,932,226	1,754	45.5	20.6	22.1	26.1	41.3	119.5	358.4	73,470
Other chromosomal anomalies	3,932,226	1,424	36.9	28.4	30.4	29.0	34.6	66.1	132.8	73,470
White										
Anencephalus	3,109,637	338	11.1	15.3	10.7	11.6	8.6	11.2	*	56,011
Spina bifida/Meningocele	3,109,637	638	20.9	23.2	22.0	23.2	17.4	16.7	*	56,011
Hydrocephalus	3,109,637	656	21.5	29.2	22.2	21.9	18.5	18.4	*	56,011
Microcephalus	3,109,637	174	5.7	*	5.5	5.4	5.1	7.8	*	56,011
Other central nervous system anomalies	3,109,637	635	20.8	27.1	22.8	18.3	17.3	23.0	*	56,011
Heart malformations	3,109,637	3,683	120.6	98.0	116.1	113.0	122.0	148.8	214.3	56,011
Other circulatory/respiratory anomalies	3,109,637	4,206	137.7	156.1	138.3	124.8	134.6	147.6	185.3	56,011
Rectal atresia/stenosis	3,109,637	296	9.7	7.2	10.6	8.4	9.7	11.5	*	56,011
Tracheo-esophageal fistula/Esophageal atresia	3,109,637	435	14.2	15.6	11.8	11.7	14.9	18.7	34.7	56,011
Omphalocele/Gastroschisis	3,109,637	876	28.7	79.4	39.7	18.6	12.6	15.8	*	56,011
Other gastrointestinal anomalies	3,109,637	914	29.9	37.0	29.8	25.9	27.8	34.5	46.3	56,011
Malformed genitalia	3,109,637	2,481	81.2	84.2	80.6	82.2	78.9	84.4	70.9	56,011
Renal agenesis	3,109,637	430	14.1	14.1	15.0	13.4	15.4	10.9	*	56,011
Other urogenital anomalies	3,109,637	3,205	105.0	98.6	101.7	102.4	112.1	106.6	118.7	56,011
Cleft lip/palate	3,109,637	2,684	87.9	96.5	99.0	85.9	75.7	85.0	97.0	56,011
Polydactyly/Syndactyly/Adactyly	3,109,637	1,892	62.0	73.4	70.3	57.9	53.6	61.2	60.8	56,011
Clubfoot	3,109,637	1,854	60.7	74.0	65.1	58.5	52.7	58.6	72.4	56,011
Diaphragmatic hernia	3,109,637	416	13.6	13.5	16.2	11.7	14.1	12.6	*	56,011
Other musculoskeletal/integumental anomalies	3,109,637	5,729	187.6	187.3	185.4	178.1	191.7	203.6	207.0	56,011
Down's syndrome	3,109,637	1,534	50.2	20.7	25.0	29.0	46.8	125.2	379.3	56,011
Other chromosomal anomalies	3,109,637	1,179	38.6	29.5	30.7	31.6	34.5	70.1	137.5	56,011

See footnotes at end of table

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Table 49. Live births with selected congenital anomalies and rates by age of mother, by race of mother: Total of 49 reporting States and the District of Columbia, 1999 --Con.

[Rates are number of live births with specified congenital anomaly per 100,000 live births in specified group]

Congenital anomaly and race of mother	All births [1]	Congenital anomaly reported	Age of mother							Not stated [2]
			All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
Black										
Anencephalus	605,473	65	10.9	*	*	*	*	*	*	8,593
Spina bifida/Meningocele	605,473	116	19.4	17.0	17.9	15.4	24.4	*	*	8,593
Hydrocephalus	605,473	139	23.3	20.3	22.1	18.3	28.8	*	*	8,593
Microcephalus	605,473	40	6.7	*	*	*	*	*	*	8,593
Other central nervous system anomalies	605,473	95	15.9	16.2	15.8	19.0	*	*	*	8,593
Heart malformations	605,473	731	122.5	94.0	105.7	128.0	114.3	231.6	284.6	8,593
Other circulatory/respiratory anomalies	605,473	820	137.4	117.6	126.7	135.3	152.0	203.7	*	8,593
Rectal atresia/stenosis	605,473	40	6.7	*	*	*	*	*	*	8,593
Tracheo-esophageal fistula/Esophageal atresia	605,473	59	9.9	*	*	*	*	*	*	8,593
Omphalocele/Gastroschisis	605,473	237	39.7	55.9	37.9	31.5	34.4	47.2	*	8,593
Other gastrointestinal anomalies	605,473	188	31.5	29.2	26.3	37.3	28.8	45.0	*	8,593
Malformed genitalia	605,473	297	49.8	49.5	47.3	41.0	63.2	53.6	*	8,593
Renal agenesis	605,473	76	12.7	*	12.6	*	*	*	*	8,593
Other urogenital anomalies	605,473	418	70.0	66.5	64.1	75.3	72.1	83.6	*	8,593
Cleft lip/palate	605,473	260	43.6	47.8	37.3	41.7	44.4	55.8	*	8,593
Polydactyly/Syndactyly/Adactyly	605,473	1,386	232.2	231.9	241.8	228.9	214.1	225.2	294.8	8,593
Clubfoot	605,473	215	36.0	39.7	38.9	32.2	25.5	45.0	*	8,593
Diaphragmatic hernia	605,473	65	10.9	*	*	*	*	*	*	8,593
Other musculoskeletal/integumental anomalies	605,473	1,995	334.2	296.7	299.1	328.4	389.4	456.8	477.8	8,593
Down's syndrome	605,473	153	25.6	21.1	12.6	*	*	87.9	294.8	8,593
Other chromosomal anomalies	605,473	154	25.8	18.6	23.7	15.4	33.3	47.2	*	8,593

* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Total number of births.
2 No response reported for the congenital anomalies item.
3 Includes races other than white and black.

NOTES: Excludes data for New Mexico, which did not report congenital anomalies. Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 50. Live births by plurality of birth and ratios, by age and race and Hispanic origin of mother: United States, 1999

Plurality and race and Hispanic origin of mother	All ages	Age of mother									
		Under 15 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-54 years
			Total	15-17 years	18-19 years						
	Number										
All live births											
All races [1]	3,959,417	9,054	476,050	163,588	312,462	981,929	1,078,252	892,400	434,294	83,090	4,348
White, total	3,132,501	4,739	337,888	111,624	226,264	748,371	873,654	739,948	356,959	67,419	3,523
White, non-Hispanic	2,346,450	2,048	212,923	63,520	149,403	514,386	663,569	600,830	294,590	55,175	2,929
Black, total	605,970	3,977	121,166	45,919	75,247	193,211	138,868	91,486	47,277	9,564	421
Black, non-Hispanic	588,981	3,890	118,285	44,851	73,434	188,247	134,784	88,403	45,746	9,223	403
Hispanic [2]	764,339	2,725	124,677	48,229	76,448	231,475	203,985	131,369	58,146	11,440	522
Live births in single deliveries											
All races [1]	3,837,789	8,971	468,714	161,326	307,388	959,878	1,046,105	857,548	413,996	79,035	3,542
White, total	3,035,757	4,696	333,192	110,189	223,003	733,193	847,912	710,358	339,701	63,899	2,806
White, non-Hispanic	2,266,577	2,029	209,859	62,695	147,164	503,223	642,497	575,262	279,412	52,033	2,262
Black, total	586,027	3,937	118,755	45,172	73,583	186,985	133,700	87,831	45,195	9,232	392
Black, non-Hispanic	569,500	3,854	115,923	44,125	71,798	182,138	129,731	84,838	43,728	8,909	379
Hispanic [2]	748,368	2,701	123,045	47,609	75,436	227,502	199,538	127,725	56,264	11,109	484
Live births in twin deliveries											
All races [1]	114,307	83	7,270	2,239	5,031	21,640	30,494	31,926	18,485	3,699	710
White, total	90,191	43	4,655	1,421	3,234	14,880	24,257	26,903	15,622	3,195	636
White, non-Hispanic	73,964	19	3,038	817	2,221	10,924	19,741	23,124	13,673	2,847	598
Black, total	19,374	40	2,386	738	1,648	6,125	5,022	3,502	1,966	310	23
Black, non-Hispanic	18,920	36	2,337	717	1,620	6,011	4,909	3,412	1,902	292	21
Hispanic [2]	15,388	24	1,617	614	1,003	3,913	4,308	3,434	1,762	304	26
Live births in higher-order multiple deliveries [3]											
All races [1]	7,321	-	66	23	43	411	1,653	2,926	1,813	356	96
White, total	6,553	-	41	14	27	298	1,485	2,687	1,636	325	81
White, non-Hispanic	5,909	-	26	8	18	239	1,331	2,444	1,505	295	69
Black, total	569	-	25	9	16	101	146	153	116	22	6
Black, non-Hispanic	561	-	25	9	16	98	144	153	116	22	3
Hispanic [2]	583	-	15	6	9	60	139	210	120	27	12
	Ratio per 1,000 live births										
All multiple births											
All races [1]	30.7	9.2	15.4	13.8	16.2	22.5	29.8	39.1	46.7	48.8	185.4
White, total	30.9	9.1	13.9	12.9	14.4	20.3	29.5	40.0	48.3	52.2	203.5
White, non-Hispanic	34.0	*	14.4	13.0	15.0	21.7	31.8	42.6	51.5	56.9	227.7
Black, total	32.9	10.1	19.9	16.3	22.1	32.2	37.2	40.0	44.0	34.7	68.9
Black, non-Hispanic	33.1	9.3	20.0	16.2	22.3	32.5	37.5	40.3	44.1	34.0	59.6
Hispanic [2]	20.9	8.8	13.1	12.9	13.2	17.2	21.8	27.7	32.4	28.9	72.8
Twin births											
All races [1]	28.9	9.2	15.3	13.7	16.1	22.0	28.3	35.8	42.6	44.5	163.3
White, total	28.8	9.1	13.8	12.7	14.3	19.9	27.8	36.4	43.8	47.4	180.5
White, non-Hispanic	31.5	*	14.3	12.9	14.9	21.2	29.7	38.5	46.4	51.6	204.2
Black, total	32.0	10.1	19.7	16.1	21.9	31.7	36.2	38.3	41.6	32.4	54.6
Black, non-Hispanic	32.1	9.3	19.8	16.0	22.1	31.9	36.4	38.6	41.6	31.7	52.1
Hispanic [2]	20.1	8.8	13.0	12.7	13.1	16.9	21.1	26.1	30.3	26.6	49.8
	Ratio per 100,000 live births										
Higher-order multiple births [3]											
All races [1]	184.9	*	13.9	14.1	13.8	41.9	153.3	327.9	417.5	428.5	2207.9
White, total	209.2	*	12.1	*	11.9	39.8	170.0	363.1	458.3	482.1	2299.2
White, non-Hispanic	251.8	*	12.2	*	*	46.5	200.6	406.8	510.9	534.7	2355.8
Black, total	93.9	*	20.6	*	*	52.3	105.1	167.2	245.4	230.0	*
Black, non-Hispanic	95.2	*	21.1	*	*	52.1	106.8	173.1	253.6	238.5	*
Hispanic [2]	76.3	*	*	*	*	25.9	68.1	159.9	206.4	236.0	*

- Quantity zero.
* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Births in greater than twin deliveries.

Technical notes

Source of data

Data shown in this report for 1999 are based on 100 percent of the birth certificates in all States and the District of Columbia. The data are provided to the National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program (VSCP). In 1984 and earlier years, the VSCP included varying numbers of States that provided data based on 100 percent of their birth certificates. Data for States not in the VSCP were based on a 50-percent sample of birth certificates filed in those States. Information on sampling procedures and sampling errors for 1984 and earlier years is provided in the annual report, *Vital Statistics of the United* States, Volume I, Natality, Technical Appendix (4). Information on the percent of records with missing information for maternal and infant characteristics included in this report is shown by State in table I. Data are not shown for the variables race, age, and marital status of mother. Missing data are imputed in these cases; see separate sections in the Technical notes for more information.

Age of mother

Age of mother is computed in most cases from the mother's and infant's dates of birth as reported on the birth certificate. The mother's age is directly reported by five States (Kentucky, Nevada, North Dakota, Virginia, Wyoming), and American Samoa. From 1964 to 1996, mother's age was edited for ages 10–49 years. Births reported to occur to mothers younger than age 10 or older than age 49 years had age imputed according to the age of mother from the previous record with the same race and total birth order (total of live births and fetal deaths). Beginning in 1997, age of mother is edited for ages 10–54 years. A review and verification of unedited birth data for 1996 showed that the vast majority of births reported as occurring to women aged 50 years and over were to women aged 50–54 years. The numbers of births to women aged 50–54 years are too small for computing age-specific birth rates. These births have been included with births to women aged 45–49 years for computing birth rates.

In 1999 age of mother was not reported on 0.02 percent of the records; for these records age of mother was imputed according to the last record with the same race and total birth order.

Race and Hispanic origin

Race and Hispanic origin are reported separately on the birth certificate. Beginning with the 1989 data year, NCHS started tabulating its birth data primarily by race of the mother. In 1988 and prior years, births were tabulated by the race of the child, which was determined from the race of the parents as entered on the birth certificate.

Trend data by race shown in this report are by race of mother for all years beginning with the 1980 data year. In order to facilitate continuity and analysis of the data, trend tables showing data for years prior to 1980 show data for both race of mother and race of child for 1980. This makes it possible to distinguish the effects of this change from real changes in the data. The text discussions of data by race are based on tabulations by race of mother. Text references to white births and white mothers or black births and black mothers are used interchangeably for ease in writing.

The factors influencing the decision to tabulate births by race of the mother have been discussed in detail elsewhere (92). They include the 1989 revision of the birth certificate, which includes many more health questions that are directly associated with the mother. In these instances, it is more appropriate to tabulate births by the mother's race. A second factor has been the increasing incidence of interracial parentage. In 1999, 5.3 percent of births were to parents of different races compared with just 2.2 percent 20 years earlier. A third factor influencing the decision to tabulate births by race of mother is the large proportion of births with race of father not stated, 14 percent in 1999. Although this proportion declined slightly in the 1990's, it is still higher than in 1979, 11 percent. The high proportion of records with the father's race not reported reflects the increase in the proportion of births to unmarried women; in many such cases, no information is reported on the father. These births are already assigned the race of the mother because there is no alternative. Tabulating all births by race of mother, therefore, provides for a more uniform approach, rather than a necessarily arbitrary combination of parental races.

Race of mother is reported by all registration areas in eight categories: white, black, American Indian, Chinese, Japanese, Hawaiian, Filipino, and "other" Asian or Pacific Islander (API). In addition, 11 States (California, Hawaii, Illinois, Minnesota, Missouri, New Jersey, New York, Texas, Virginia, Washington, and West Virginia) report data on API subgroups included in the "other" API category (Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and remaining API). A report on births in 1992 to women in these API subgroups has been published (93).

In 1999 race of mother was not reported for 0.6 percent of births. In these cases, if the race of the father was known, the race of the father was assigned to the mother. When information was not available for either parent, the race of the mother was imputed according to the specific race of the mother on the preceding record with a known race of mother. This was necessary for just 0.4 percent of births in 1999.

Hispanic origin and race are reported independently on the birth certificate, as noted previously. Data for Hispanic subgroups are shown in most cases for five groups: Mexican, Puerto Rican, Cuban, Central and South American, and other (and unknown) Hispanic. In tabulations of birth data by race only, data for persons of Hispanic origin are included in the data for each race group according to the mother's reported race. In tabulations of birth data by race and Hispanic origin, data for persons of Hispanic origin are not further classified by race because the vast majority of births to Hispanic women are reported as white (97 percent in 1999). In these tabulations, data for non-Hispanic persons are classified according to the race of the mother because there are substantial differences in fertility and maternal and infant health between Hispanic and non-Hispanic white women.

Items asking for the Hispanic origin of the mother and the father have been included on the birth certificates of all States and the District of Columbia, the Virgin Islands, and Guam since 1993 (5). Puerto Rico, American Samoa, and the Northern Marianas do not collect this information. The percent of records for which Hispanic origin of the parents was not reported in 1999 is shown by State in table I.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status. For 1994 through 1996, birth certificates in 45 states and the District of Columbia included a

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1999

[By place of residence]

Area	All births	Place of birth	Attendant at birth	Mother's birthplace	Father's age	Father's race	Hispanic origin		Educational attainment of mother	Live-birth order	Length of gestation	Month prenatal care began	Number of prenatal visits
							Mother	Father					
Total of reporting areas[1]	3,959,417	0.0	0.0	0.3	14.0	14.6	1.2	14.9	1.6	0.5	1.1	2.9	3.9
Alabama	62,122	–	0.0	0.1	22.7	22.8	0.1	22.7	0.3	0.0	0.1	0.3	0.7
Alaska	9,950	0.0	0.1	0.4	12.7	15.1	0.5	13.4	2.2	0.3	0.2	1.9	1.7
Arizona	81,145	0.0	0.0	0.2	19.7	21.7	1.3	21.7	2.4	0.3	0.2	2.5	4.7
Arkansas	36,729	0.0	0.0	0.1	19.6	21.8	0.1	20.9	1.0	0.1	0.2	2.4	2.6
California	518,508	0.0	0.0	0.3	7.2	6.8	0.6	6.2	1.5	0.1	[2]5.7	1.6	3.1
Colorado	62,167	–	–	0.3	9.0	9.4	0.1	9.5	1.0	0.1	0.0	0.7	0.9
Connecticut	43,310	0.0	0.0	0.2	10.9	12.3	5.1	15.6	3.4	7.1	0.2	3.3	6.3
Delaware	10,676	–	0.5	0.2	31.6	32.3	0.1	31.5	0.5	0.1	0.1	0.8	1.0
District of Columbia	7,522	–	–	0.1	43.5	51.0	0.7	43.4	9.2	0.1	0.6	16.8	19.7
Florida	197,023	0.0	0.0	0.1	17.3	17.6	0.1	18.9	0.6	0.0	0.1	0.9	2.0
Georgia	126,717	0.0	0.0	0.2	17.6	18.1	1.2	18.4	2.3	0.5	0.2	3.7	3.4
Hawaii	17,038	–	0.0	0.1	8.9	9.1	0.1	9.2	0.7	0.0	3.4	3.8	4.4
Idaho	19,872	–	0.0	0.2	8.3	11.5	0.4	11.1	2.3	0.1	0.2	1.5	2.0
Illinois	182,068	0.0	0.0	0.1	14.4	15.8	0.1	15.9	1.0	0.1	0.2	2.1	2.5
Indiana	86,031	0.0	0.1	0.2	13.3	13.4	0.4	13.6	0.9	0.2	0.1	1.3	2.6
Iowa	37,558	0.0	0.0	0.4	11.9	13.7	1.0	14.6	1.5	0.1	0.1	1.1	3.2
Kansas	38,782	–	0.0	0.1	10.5	10.7	0.9	11.9	0.3	0.0	0.1	0.6	0.8
Kentucky	54,403	–	0.1	0.0	19.5	22.2	0.1	23.1	0.2	0.1	0.1	1.0	1.2
Louisiana	67,136	0.0	0.0	0.0	21.3	21.5	0.6	21.8	0.0	0.0	0.0	0.3	0.6
Maine	13,616	–	0.0	–	9.6	14.1	5.1	18.1	0.8	0.3	0.1	0.5	0.5
Maryland	71,967	0.0	0.0	0.6	7.7	9.2	0.4	6.6	1.9	0.3	0.5	3.8	6.6
Massachusetts	80,939	–	0.0	0.0	7.7	7.6	0.6	6.8	0.4	0.4	0.4	1.2	0.5
Michigan	133,607	0.0	0.1	0.1	15.4	17.6	5.9	22.2	1.7	0.4	0.3	4.1	5.6
Minnesota	65,970	–	–	0.1	8.5	10.9	5.2	15.3	2.2	0.4	0.9	6.4	5.7
Mississippi	42,684	0.0	0.0	0.1	23.1	22.9	0.1	23.3	0.3	0.1	0.2	0.6	1.7
Missouri	75,432	–	–	0.2	17.9	18.5	0.1	18.3	0.7	0.4	0.1	1.8	2.8
Montana	10,785	0.0	0.1	0.0	9.4	10.5	1.4	11.5	0.4	0.0	0.1	0.4	0.3
Nebraska	23,907	–	0.0	0.0	11.8	12.8	2.4	13.9	0.1	–	0.0	0.3	0.6
Nevada	29,362	0.0	0.0	1.0	20.8	21.7	1.4	20.3	3.5	1.1	1.0	8.4	10.9
New Hampshire	14,041	–	–	0.0	6.3	8.8	3.9	13.2	1.1	2.4	0.3	1.5	1.6
New Jersey	114,105	0.0	0.0	0.2	9.0	11.3	0.4	9.4	2.6	0.1	0.1	5.4	6.8
New Mexico	27,191	–	–	2.7	28.6	28.0	0.0	28.0	4.5	0.5	0.5	7.3	5.8
New York	255,612	0.1	0.0	0.4	14.9	15.2	4.9	18.8	1.9	0.1	0.4	9.6	6.7
North Carolina	113,795	–	0.0	0.0	16.8	16.8	0.0	16.8	0.2	0.1	0.1	0.7	0.7
North Dakota	7,639	0.0	0.0	–	8.4	9.0	3.4	12.1	0.2	0.1	0.1	0.4	0.4
Ohio	152,584	0.0	0.0	2.0	15.1	17.0	0.4	12.3	0.7	0.3	0.1	1.2	2.4
Oklahoma	49,010	–	0.1	0.1	17.8	19.2	2.0	19.3	1.8	1.5	4.8	11.2	13.9
Oregon	45,204	–	–	0.2	11.3	5.1	0.8	6.0	1.8	0.1	0.0	0.4	0.7
Pennsylvania	145,347	0.0	0.0	0.9	5.5	4.2	0.5	3.6	2.7	0.5	0.3	3.8	6.0
Rhode Island	12,366	–	–	0.5	13.6	14.4	13.8	24.2	2.9	1.6	1.3	4.9	5.6

See footnotes at end of table.

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1999—Con.

[By place of residence]

Area	All births	Place of birth	Attendant at birth	Mother's birthplace	Father's age	Father's race	Hispanic origin		Educational attainment of mother	Live-birth order	Length of gestation	Month prenatal care began	Number of prenatal visits
							Mother	Father					
South Carolina	54,948	0.0	0.0	0.3	28.0	28.0	0.1	28.0	4.5	0.1	0.2	1.5	1.7
South Dakota	10,524	0.0	–	0.0	12.7	12.8	0.1	13.1	0.2	0.0	0.0	0.2	0.3
Tennessee	77,803	–	0.0	0.1	15.8	16.0	0.0	16.1	0.2	0.2	0.3	1.4	1.1
Texas	349,245	0.0	0.0	0.4	15.2	15.3	0.4	15.3	1.7	1.3	0.7	2.1	5.8
Utah	46,290	0.0	0.0	0.2	8.7	9.6	0.2	9.0	1.0	0.4	0.1	4.9	5.6
Vermont	6,567	–	–	0.1	9.1	14.8	2.2	16.1	2.6	0.5	0.1	4.1	2.0
Virginia	95,469	–	0.1	0.1	17.6	19.1	0.2	17.8	0.7	0.0	0.1	0.3	0.5
Washington	79,586	0.0	0.2	0.4	10.0	13.8	4.4	15.1	10.1	3.7	2.2	9.5	13.8
West Virginia	20,728	0.2	0.0	0.1	12.6	13.4	0.2	13.4	0.8	0.1	0.4	4.5	3.3
Wisconsin	68,208	–	0.0	0.1	28.8	28.8	0.0	28.8	0.2	0.0	0.0	0.2	0.3
Wyoming	6,129	–	–	0.0	14.2	14.8	0.0	14.3	0.5	0.0	0.0	0.7	1.1
Puerto Rico	59,563	–	0.1	–	3.0	3.8	---	---	0.4	0.0	0.1	0.4	0.1
Virgin Islands	1,671	–	0.1	–	24.8	26.5	4.4	27.5	2.6	0.6	1.1	0.7	2.9
Guam	4,021	0.0	1.0	0.4	22.9	23.9	1.2	25.4	0.6	1.0	0.3	0.5	0.9
American Samoa	1,736	0.1	–	36.6	35.5	35.8	---	---	---	–	---	---	---
Commonwealth of the Northern Marianas Islands	1,381	0.1	0.2	0.1	6.4	8.5	---	---	15.1	14.4	12.5	15.5	13.3

See footnotes at end of table.

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1999—Con.

[By place of residence]

Area	All births	Birth-weight	5-minute Apgar score	Medical risk factors	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complications of labor and/or delivery	Method of delivery	Abnormal conditions of newborn	Congenital anomalies
Total of reporting areas[1]	3,959,417	0.1	0.5	1.6	1.4	1.7	8.4	1.1	1.3	0.8	2.5	1.9
Alabama	62,122	0.1	0.3	0.0	0.0	0.1	3.4	0.0	0.0	0.3	0.0	0.0
Alaska	9,950	0.4	0.6	0.7	0.6	0.8	2.5	0.4	0.6	0.5	0.7	0.9
Arizona	81,145	0.1	0.4	0.0	1.3	1.5	11.9	0.0	0.0	0.3	0.0	0.4
Arkansas	36,729	0.1	3.4	0.2	0.4	0.5	7.5	0.2	0.2	0.5	0.2	0.2
California	518,508	0.0	---	0.0	---	---	---	0.0	0.0	0.0	0.0	0.0
Colorado	62,167	0.0	0.3	0.0	0.1	0.1	2.9	–	–	–	–	0.1
Connecticut	43,310	0.0	1.5	9.8	5.7	6.0	18.4	9.3	10.2	0.9	15.9	16.8
Delaware	10,676	0.0	0.3	0.0	0.3	0.3	1.6	0.0	0.0	–	0.1	0.0
District of Columbia	7,522	0.2	1.1	0.0	0.0	0.0	17.5	–	0.0	0.0	0.0	0.0
Florida	197,023	0.0	0.2	0.0	0.1	0.1	4.8	0.0	0.0	0.6	0.0	0.0
Georgia	126,717	0.0	0.5	0.3	0.5	0.5	8.2	0.0	0.0	0.4	0.0	0.0
Hawaii	17,038	0.9	1.2	19.6	0.1	0.1	12.5	11.8	10.1	0.5	21.5	23.3
Idaho	19,872	0.1	0.5	0.2	0.5	0.6	7.1	0.2	0.2	0.4	0.5	0.5
Illinois	182,068	0.1	0.3	0.0	0.2	0.1	4.2	0.0	0.0	0.4	0.0	0.1
Indiana	86,031	0.4	0.4	0.2	[2]0.3	0.3	2.8	0.1	0.2	0.5	0.7	0.7
Iowa	37,558	0.0	0.3	0.1	2.2	2.6	6.7	0.1	0.1	0.5	0.1	0.1
Kansas	38,782	0.0	0.4	[3]0.5	0.5	0.5	0.6	0.4	0.4	1.2	0.4	0.4
Kentucky	54,403	0.1	0.4	5.3	3.8	4.4	8.5	4.0	6.1	4.2	13.0	11.9
Louisiana	67,136	0.0	0.3	0.1	0.1	0.1	5.9	0.1	0.1	0.1	0.1	0.1
Maine	13,616	0.1	0.2	0.1	1.7	2.1	1.7	0.0	0.0	0.2	0.1	0.1
Maryland	71,967	0.0	0.4	0.0	0.4	0.6	6.6	0.0	0.0	0.2	0.0	0.0
Massachusetts	80,939	0.5	0.5	1.0	0.4	0.4	1.1	1.0	1.0	0.7	1.3	1.3
Michigan	133,607	0.3	0.5	0.1	2.1	2.1	9.6	0.1	0.1	0.5	0.1	0.3
Minnesota	65,970	0.1	0.6	7.2	6.6	6.7	18.2	5.8	6.7	3.3	7.5	7.9
Mississippi	42,684	0.1	0.3	0.1	0.2	0.3	5.1	0.0	0.1	0.3	0.1	0.1
Missouri	75,432	0.0	0.5	0.1	0.3	0.4	2.9	0.1	0.1	0.6	0.1	0.1
Montana	10,785	0.0	0.4	0.1	0.9	1.4	1.7	0.1	0.1	0.3	0.1	0.2
Nebraska	23,907	0.0	0.2	0.0	0.8	0.8	1.7	0.0	0.0	0.3	0.1	0.0
Nevada	29,362	0.1	1.4	9.4	2.0	2.2	11.8	1.2	6.4	0.8	11.2	11.7
New Hampshire	14,041	0.3	0.4	0.1	0.3	0.3	4.1	0.1	0.1	0.3	0.1	0.1
New Jersey	114,105	0.1	0.3	1.2	0.6	0.8	7.2	0.1	0.8	0.4	24.8	1.7
New Mexico	27,191	0.3	3.3	0.1	2.4	2.4	11.1	0.0	0.0	0.6	0.2	---
New York	255,612	0.1	0.2	1.3	[4]0.2	0.2	9.7	0.2	0.4	0.3	[5]0.9	0.9
North Carolina	113,795	0.1	0.4	0.0	0.2	0.2	2.5	0.0	0.0	0.4	0.0	0.0
North Dakota	7,639	0.1	0.3	0.4	0.7	1.2	1.6	0.3	0.3	1.3	0.6	0.5
Ohio	152,564	0.1	0.2	0.1	0.4	0.4	2.8	0.1	0.1	0.6	0.1	0.1
Oklahoma	49,010	0.6	6.1	37.9	28.7	29.0	37.9	33.9	37.0	28.9	40.9	41.2
Oregon	45,204	0.0	0.5	1.0	0.9	1.0	3.3	0.0	0.0	0.3	0.1	0.1
Pennsylvania	145,347	0.1	0.4	0.1	0.6	0.7	9.3	0.0	0.0	0.0	0.6	0.5
Rhode Island	12,366	0.5	0.4	6.8	2.8	2.9	12.3	6.5	6.6	0.4	14.7	14.7

See footnotes at end of table.

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1999—Con.

[By place of residence]

Area	All births	Birth-weight	5-minute Apgar score	Medical risk factors	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complications of labor and/or delivery	Method of delivery	Abnormal conditions of newborn	Congenital anomalies
South Carolina	54,948	0.0	0.3	0.0	0.2	0.2	2.6	0.0	0.0	0.4	0.0	0.0
South Dakota	10,524	0.0	0.4	0.1	---	---	1.1	0.1	0.0	0.1	0.0	0.0
Tennessee	77,803	0.0	0.3	0.1	0.2	0.2	5.5	0.1	0.1	0.6	0.1	0.1
Texas	349,245	0.1	---	[1]1.4	1.4	1.4	18.5	0.0	[4]0.0	0.9	[4]0.3	0.4
Utah	46,290	0.1	0.4	0.1	0.3	0.4	3.8	0.0	0.0	0.0	0.2	0.2
Vermont	6,567	0.3	0.4	0.2	0.4	0.4	1.4	0.2	0.2	0.1	0.3	0.2
Virginia	95,469	0.1	0.3	0.2	0.0	0.0	2.2	0.0	0.2	0.3	0.5	0.3
Washington	79,586	1.2	0.9	16.3	6.5	16.1	26.1	12.8	15.5	0.5	20.3	17.8
West Virginia	20,728	0.1	0.3	1.0	1.5	3.2	8.9	0.2	1.3	0.4	2.6	2.5
Wisconsin	68,208	0.0	0.4	0.1	0.1	0.1	1.8	0.1	0.1	0.0	[4]0.1	0.1
Wyoming	6,129	0.0	0.5	0.0	1.1	1.2	2.6	0.0	0.0	0.2	0.0	0.0
Puerto Rico	59,563	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1
Virgin Islands	1,671	0.2	3.3	7.2	1.7	1.8	7.8	2.0	8.2	2.7	8.0	7.4
Guam	4,021	0.2	1.6	2.8	0.8	0.9	5.1	1.1	3.5	0.6	2.9	2.8
American Samoa	1,736	–	---	---	---	---	---	---	---	---	---	---
Commonwealth of the Northern Marianas Islands	1,381	5.8	10.4	---	[10]16.0	[10]16.1	---	---	---	9.8	---	---

0.0 Quantity more than zero but less than 0.05.
--- Data not available.
– Quantity zero.
[1]Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.
[2]California reports date last normal menses began but does not report clinical estimate of gestation.
[3]Indiana and New York State report tobacco use but do not report the average number of cigarettes smoked per day in standard categories; data for New York City are reported in standard categories.
[4]Kansas does not report Rh sensitization.
[5]Texas does not report genital herpes and uterine bleeding.
[6]Nebraska and Texas do not report birth injury.
[7]New York City does not report assisted ventilation less than 30 minutes and assisted ventilation of 30 minutes or more.
[8]Texas does not report anesthetic complications and fetal distress.
[9]Wisconsin does not report fetal alcohol syndrome.
[10]The Commonwealth of the Northern Marianas reports tobacco and alcohol use, but does not report the average number of cigarettes smoked per day or the average number of drinks per day.

question about the mother's marital status. Beginning in 1997, the marital status of women giving birth in California and Nevada is determined by a direct question in the birth registration process. Beginning June 15, 1998, Connecticut discontinued inferring the mother's marital status and added a direct question on mother's marital status to the State's birth certificate.

In the two States (Michigan and New York) that use inferential procedures to compile birth statistics by marital status in 1999, a birth is inferred as nonmarital if either of these factors, listed in priority-of-use order, is present: a paternity acknowledgment was received or the father's name is missing. In recent years, a number of States have extended their efforts to identify the fathers when the parents are not married in order to enforce child support obligations. The presence of a paternity acknowledgment therefore is the most reliable indicator that the birth is nonmarital in the States not reporting this information directly; this is now the key indicator in the nonreporting States. The inferential procedures in effect since 1980 represent a substantial departure from the method used before 1980 to prepare national estimates of births to unmarried women, which assumed that the incidence of births to unmarried women in States with no direct question on marital status was the same as the incidence in reporting States in the same geographic division (24, 94).

Because of the continued substantial increases in nonmarital childbearing throughout the 1980's and early 1990's, along with the changes in reporting procedures throughout the last two decades, the data have been intensively evaluated by the Division of Vital Statistics, NCHS. The results of this evaluation show that trends in birth rates for unmarried women computed on the basis of estimated data and on the basis of inferred data are essentially the same. Details of the changes in reporting procedures are described in previous reports (24, 94).

The mother's marital status was not reported in 1999 on 0.03 percent of the birth records in the 48 States and the District of Columbia where this information is obtained by a direct question. Marital status was imputed as "married" for these records.

Tobacco use

Beginning in 1999, data on whether or not the mother smoked during pregnancy is available for the District of Columbia and all States except for California and South Dakota. These areas comprised 87 percent of U.S. births in 1999. Data on the number of cigarettes smoked daily were available in a comparable format for 46 States, the District of Columbia, and New York City. Indiana and New York State (except for New York City) reported information on number of cigarettes smoked in a format that was inconsistent with the NCHS standard (see figure I). The areas reporting on the number of cigarettes smoked comprised 82 percent of U.S. births in 1999.

Prenatal care

As a result of a programming error, the proportions presented in "Report of Final Natality Statistics, 1996" and "Births: Final Data for 1997" for the Adequacy of Prenatal Care Utilization Index (APNCU) are incorrect for levels of care other than intensive use of care (19, 20, 95). Levels for the adequate care category are only slightly different from those published previously. The corrected APNCU levels for 1990 and 1995–97 are presented in this report.

Gestation

The primary measure used to determine the gestational age of the newborn is the interval between the first day of the mother's last normal menstrual period (LMP) and the date of birth. It is subject to error for several reasons, including imperfect maternal recall or misidentification of the LMP because of postconception bleeding, delayed ovulation, or intervening early miscarriage. These data are edited for LMP-based gestational ages that are clearly inconsistent with the infant's plurality and birthweight (see below), but reporting problems for this item persist and may occur more frequently among some subpopulations and among births with shorter gestations (96, 97).

The U.S. Standard Certificate of Live Birth includes an item, "clinical estimate of gestation," that is being compared with length of gestation computed from the date the last normal menstrual period (LMP) began when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and very low birthweight births reported to be full term. The clinical estimate was also used if the LMP date was not reported. The period of gestation for 5.1 percent of the births in 1999 was based on the clinical estimate of gestation. For 97 percent of these records, the clinical estimate was used because the LMP date was not reported. For the remaining 3 percent, the clinical estimate was used because it was compatible with the reported birthweight, whereas the LMP-based gestation was not. In cases where the reported birthweight was inconsistent with both the LMP-computed gestation and the clinical estimate of gestation, the LMP-computed gestation was used, and birthweight was reclassified as "not stated." This was necessary for fewer than 350 births or less than 0.01 percent of all birth records in 1999. The levels of the adjustments in 1999 data were similar to those for 1998 and earlier years (21).

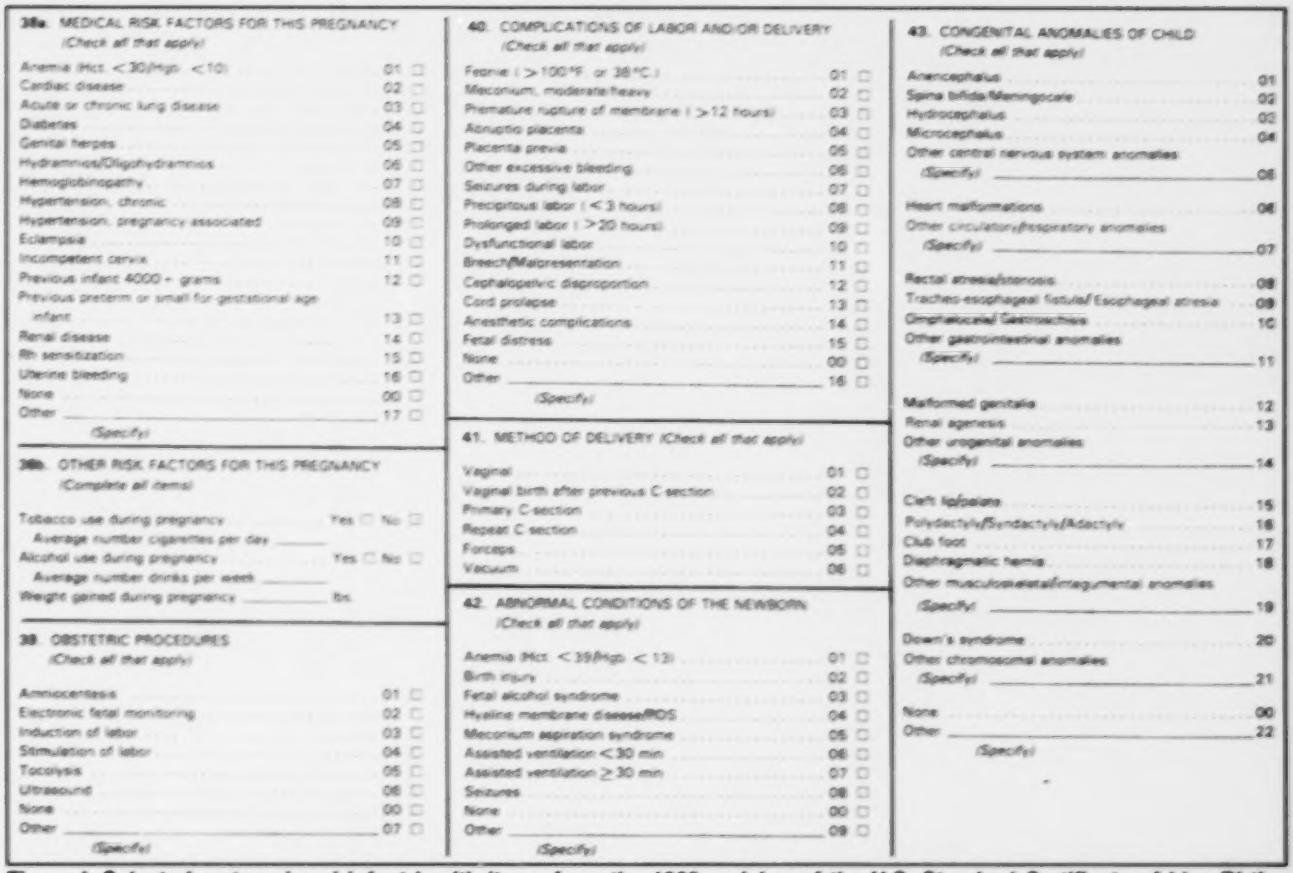
Birthweight

Birthweight is reported in some areas in pounds and ounces rather than in grams. However, the metric system has been used in tabulating and presenting the statistics to facilitate comparison with data published by other groups. Equivalents of the gram weights in terms of pounds and ounces are as follows:

Less than 500 grams = 1 lb, 1 oz or less
500–999 grams = 1 lb 2 oz–2 lb 3 oz
1,000–1,499 grams = 2 lb 4 oz–3 lb 4 oz
1,500–1,999 grams = 3 lb 5 oz–4 lb 6 oz
2,000–2,499 grams = 4 lb 7 oz–5 lb 8 oz
2,500–2,999 grams = 5 lb 9 oz–6 lb 9 oz
3,000–3,499 grams = 6 lb 10 oz–7 lb 11 oz
3,500–3,999 grams = 7 lb 12 oz–8 lb 13 oz
4,000–4,499 grams = 8 lb 14 oz–9 lb 14 oz
4,500–4,999 grams = 9 lb 15 oz–11 lb 0 oz
5,000 grams or more = 11 lb 1 oz or more

Method of delivery

Several rates are computed for method of delivery. The overall cesarean section rate or *total cesarean* rate is computed as the percent of all births that were delivered by cesarean section. The *primary cesarean* rate is a measure that relates the number of women having a first cesarean delivery to all women giving birth who



38a. MEDICAL RISK FACTORS FOR THIS PREGNANCY
(Check all that apply)

Anemia (Hct. < 30/Hgb. < 10) 01 ☐
Cardiac disease 02 ☐
Acute or chronic lung disease 03 ☐
Diabetes 04 ☐
Genital herpes 05 ☐
Hydramnios/Oligohydramnios 06 ☐
Hemoglobinopathy 07 ☐
Hypertension, chronic 08 ☐
Hypertension, pregnancy associated 09 ☐
Eclampsia 10 ☐
Incompetent cervix 11 ☐
Previous infant 4000 + grams 12 ☐
Previous preterm or small for gestational age infant 13 ☐
Renal disease 14 ☐
Rh sensitization 15 ☐
Uterine bleeding 16 ☐
None 00 ☐
Other _____ 17 ☐
(Specify)

38b. OTHER RISK FACTORS FOR THIS PREGNANCY
(Complete all items)

Tobacco use during pregnancy Yes ☐ No ☐
Average number cigarettes per day _____
Alcohol use during pregnancy Yes ☐ No ☐
Average number drinks per week _____
Weight gained during pregnancy _____ lbs.

39. OBSTETRIC PROCEDURES
(Check all that apply)

Amniocentesis 01 ☐
Electronic fetal monitoring 02 ☐
Induction of labor 03 ☐
Stimulation of labor 04 ☐
Tocolysis 05 ☐
Ultrasound 06 ☐
None 00 ☐
Other _____ 07 ☐
(Specify)

40. COMPLICATIONS OF LABOR AND/OR DELIVERY
(Check all that apply)

Febrile (>100 °F. or 38 °C.) 01 ☐
Meconium, moderate/heavy 02 ☐
Premature rupture of membrane (>12 hours) 03 ☐
Abruptio placenta 04 ☐
Placenta previa 05 ☐
Other excessive bleeding 06 ☐
Seizures during labor 07 ☐
Precipitous labor (< 3 hours) 08 ☐
Prolonged labor (>20 hours) 09 ☐
Dysfunctional labor 10 ☐
Breech/Malpresentation 11 ☐
Cephalopelvic disproportion 12 ☐
Cord prolapse 13 ☐
Anesthetic complications 14 ☐
Fetal distress 15 ☐
None 00 ☐
Other _____ 16 ☐
(Specify)

41. METHOD OF DELIVERY (Check all that apply)

Vaginal 01 ☐
Vaginal birth after previous C-section 02 ☐
Primary C-section 03 ☐
Repeat C-section 04 ☐
Forceps 05 ☐
Vacuum 06 ☐

42. ABNORMAL CONDITIONS OF THE NEWBORN
(Check all that apply)

Anemia (Hct. < 39/Hgb. < 13) 01 ☐
Birth injury 02 ☐
Fetal alcohol syndrome 03 ☐
Hyaline membrane disease/RDS 04 ☐
Meconium aspiration syndrome 05 ☐
Assisted ventilation < 30 min 06 ☐
Assisted ventilation ≥ 30 min 07 ☐
Seizures 08 ☐
None 00 ☐
Other _____ 09 ☐
(Specify)

43. CONGENITAL ANOMALIES OF CHILD
(Check all that apply)

Anencephalus 01
Spina bifida/Meningocele 02
Hydrocephalus 03
Microcephalus 04
Other central nervous system anomalies
(Specify) _____ 05

Heart malformations 06
Other circulatory/respiratory anomalies
(Specify) _____ 07

Rectal atresia/stenosis 08
Tracheo-esophageal fistula/Esophageal atresia 09
Omphalocele/Gastroschisis 10
Other gastrointestinal anomalies
(Specify) _____ 11

Malformed genitalia 12
Renal agenesis 13
Other urogenital anomalies
(Specify) _____ 14

Cleft lip/palate 15
Polydactyly/Syndactyly/Adactyly 16
Club foot 17
Diaphragmatic hernia 18
Other musculoskeletal/integumental anomalies
(Specify) _____ 19

Down's syndrome 20
Other chromosomal anomalies
(Specify) _____ 21

None 00
Other _____ 22
(Specify)

Figure I. Selected maternal and infant health items from the 1989 revision of the U.S. Standard Certificate of Live Birth

have never had a cesarean delivery. The denominator for this rate includes all births less those with method of delivery classified as repeat cesarean, vaginal birth after previous cesarean, or method not stated. The rate for *vaginal birth after previous cesarean* (VBAC) delivery is computed by relating all VBAC deliveries to the sum of VBAC and repeat cesarean deliveries, that is, to women with a previous cesarean section. The proportion of cesarean deliveries among births in Hawaii in 1999 is believed to be substantially understated because of incomplete reporting of method of delivery in some hospitals.

Computations of percents, percent distributions, medians, and means

Births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percents, percent distributions, and medians were computed. The percent of records with missing information for each item is shown by State in table I. The median number of prenatal visits also excludes births to mothers who had no prenatal care. Computations of the median years of school completed and the median number of prenatal visits were based on ungrouped data. The median age of mother is computed from birth rates in 5-year age groups, which eliminates the effects of changes in the age composition of the childbearing population over time. The mean age of father is computed from frequencies of births where age of father not stated is distributed in the same proportions as births with known age for each 5 year age classification of mother. An asterisk is shown in place of any derived statistic based on fewer than 20 births in the numerator or denominator.

Population denominators

Birth and fertility rates for 1999 shown in tables 1, 3–6, 8, 9, 13, and 14 are based on populations estimated as of July 1, 1999. These populations are shown in tables II and III. The population estimates have been published by the U.S. Census Bureau (6) and are based on the 1990 census counts by race and age, which were modified to be consistent with Office of Management and Budget racial categories and historical categories for birth data, and in the case of age, to reflect age as of the census reference date. The modification procedures are described in detail in a census report (98).

Birth and fertility rates by State shown in table 10 are based on State-level population estimates provided by the U.S. Census Bureau that are consistent with the U.S. populations (99). Rates by State shown in this report may differ from rates computed on the basis of other population estimates. Birth and fertility rates by month shown in table 15 are based on monthly population estimates also based on the 1999 estimates. Rates for unmarried women shown in tables 17 and 18 are based on distributions of the population by marital status as of March 1999 provided by the U.S. Census Bureau (23), which have been

Table II. Estimated total population by race, and estimated female population by age and race: United States, 1999

[Populations estimated as of July 1]

Age	All races	White	Black	American Indian	Asian or Pacific Islander
Total population	272,690,813	224,610,797	34,862,169	2,397,426	10,820,421
Female population					
15–44 years	60,107,320	48,137,939	8,638,842	576,624	2,753,915
10–14 years	9,536,777	7,495,621	1,518,163	122,247	400,746
15–19 years	9,596,926	7,578,366	1,495,511	116,732	406,317
15–17 years	5,703,781	4,500,884	882,758	72,134	248,005
18–19 years	3,893,145	3,077,482	612,753	44,598	158,312
20–24 years	8,842,537	6,995,196	1,363,289	96,464	387,588
25–29 years	9,153,808	7,215,552	1,362,369	94,172	481,715
30–34 years	9,955,716	7,942,520	1,419,010	88,606	505,580
35–39 years	11,328,875	9,201,352	1,536,944	92,576	498,003
40–44 years	11,229,458	9,204,953	1,461,719	88,074	474,712
45–49 years	9,855,557	8,158,465	1,213,898	73,738	409,456

SOURCE: U.S. Census Bureau. U.S. population estimates by age, sex, race, and Hispanic origin: 1980 to 1999. Washington, DC: U.S. Census Bureau. Internet release, April 11, 2000. http://www.census.gov/population/www.estimates/nat_90s_1.html

Table III. Estimated total population by specified Hispanic origin and estimated female population by age and specified Hispanic origin and by race for women of non-Hispanic origin: United States, 1999

[Populations estimated as of July 1]

	Hispanic					Non-Hispanic		
Age	Total	Mexican	Puerto Rican	Cuban	Other Hispanic[1]	Total[2]	White	Black
Total population	31,337,161	20,466,782	2,945,172	1,344,410	6,558,797	241,353,656	196,049,405	33,092,411
Female population								
15–44 years	7,491,138	4,843,368	735,357	255,399	1,657,014	52,616,183	41,327,758	8,209,248
10–14 years	1,339,244	897,933	139,303	34,282	267,726	8,197,533	6,284,953	1,439,907
15–19 years	1,335,286	906,706	148,558	36,152	241,870	8,261,640	6,364,388	1,421,531
15–17 years	786,999	550,024	86,968	22,588	127,399	4,916,784	3,786,782	838,952
18–19 years	548,287	356,682	61,570	13,564	114,471	3,344,856	2,577,606	582,579
20–24 years	1,295,002	875,033	110,189	33,722	276,058	7,547,530	5,811,775	1,293,089
25–29 years	1,250,837	860,673	106,482	39,415	244,267	7,902,976	6,076,568	1,293,184
30–34 years	1,284,875	804,502	133,657	49,786	296,730	8,670,838	6,776,864	1,342,837
35–39 years	1,255,045	736,515	132,791	51,231	334,508	10,073,832	8,062,765	1,461,473
40–44 years	1,070,093	657,939	103,480	45,093	263,581	10,159,367	8,235,378	1,397,134
45–49 years	838,951	486,296	87,892	44,731	220,030	9,016,608	7,397,436	1,163,815

[1]Includes Central and South American and other and unknown Hispanic.

[2]Includes races other than white and black.

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Census Bureau. Totals for Hispanic population and non-Hispanic population by race are consistent with figures published in: U.S. Census Bureau. U.S. population estimates by age, sex, race, and Hispanic origin: 1980 to 1999. Washington, DC: U.S. Census Bureau. Internet release, April 11, 2000. http://www.census.gov/population/www/estimates/nat_90s_1.html

adjusted to July 1999 population levels (6) by the Division of Vital Statistics, NCHS (24, 94).

Birth and fertility rates for the Hispanic population, shown in tables 6, 8, 9, and 14, are based on estimates of the total Hispanic population as of July 1, 1999 (6). Rates for Hispanic subgroups are based on special population estimates that are presented in table III in the Technical notes (100). More information about the populations for Hispanic subgroups is presented elsewhere (4).

Computation of rates

In computing birth rates by live-birth order, births with birth order not stated were distributed in the same proportion as births of known live-birth order. This procedure is done separately by race.

In computing birth and fertility rates for the Hispanic population, births with origin of mother not stated are included with non-Hispanic births rather than being distributed. Thus, rates for the U.S. Hispanic population are underestimates of the true rates to the extent that the births with origin of mother not stated (1.2 percent) were actually to Hispanic mothers (see table I). In computing the rates, the census-based populations with origin not stated are imputed. The effect on the rates is believed to be small.

Age of father—Information on age of father is often missing on birth certificates of children born to unmarried women (table I). In computing birth rates by age of father, births where age of father is not stated are distributed in the same proportions as births with known age within each 5-year age classification of mother. This procedure is followed because, while father's age is missing on 14 percent of the

birth certificates, nearly one third of these were on records where the mother is a teenager. This distribution procedure is done separately by race. The resulting distributions are summed to form a composite frequency distribution that is the basis for computing birth rates by age of father. This procedure avoids the distortion in rates that would result if the relationship between age of mother and age of father were disregarded.

Graphic presentation

Trend data shown in figures 2–4, 6, 7, and 9 are plotted using a logarithmic scale. This approach is taken to facilitate comparison of the relative change in rates over time for each series of rates as well as the differentials among rates for different series. The trend lines in figure 2, for example, show that women 40–44 years of age experienced the most change of any group over the period, and also that they had the greatest increase in rates since 1985.

Random variation and significance testing for natality data

The number of births reported for an area is essentially a complete count, because more than 99 percent of all births are registered. Although this number is not subject to sampling error, it may be affected by nonsampling errors such as mistakes in recording the mother's residence or age during the registration process.

When the number of births is used for analytic purposes the number of events that *actually* occurred can be thought of as one in a large series of possible results that *could have* occurred under the same circumstances. When considered in this way, the number of births is subject to random variation. The probable range of values may be estimated from the actual figures according to certain statistical assumptions.

The **confidence interval** is the range of values for the number of births, birth rates, or percent of births that you could expect in 95 out of 100 cases. The **confidence limits** are the end points of this range of values (the highest and lowest values). Confidence limits tell you how much the number of events or rates could vary under similar circumstances.

Confidence limits for numbers, rates, and percents can be estimated from the actual number of events. Procedures differ for rates and percents and also differ depending on the number of births on which these statistics are based. Below are detailed procedures and examples for each type of case.

95-percent confidence limits for numbers less than 100

When the number of births is less than 100 and the rate is small, the data are assumed to follow a Poisson probability distribution. Confidence limits are estimated using the following formulas:

$$\text{Lower limit} = B \times L$$

$$\text{Upper limit} = B \times U$$

where

B = number of births

L = value in table IV that corresponds to the number B

U = value in table IV that corresponds to the number B

Example

Suppose that the number of first births to American Indian women 40–44 years of age was 47. The confidence limits for this number would be:

$$\text{Lower limit} = B \times L$$
$$= 47 \times 0.73476$$
$$= 35$$

$$\text{Upper limit} = B \times U$$
$$= 47 \times 1.32979$$
$$= 63$$

This means that the chances are 95 out of 100 that the actual number of first births to American Indian women 40–44 years of age would lie between 35 and 63.

95-percent confidence limits for numbers of 100 or more

When the number of events is greater than 100, the data are assumed to be approximately normally distributed. Formulas for 95-percent confidence limits are:

$$\text{Lower limit} = B - (1.96 \times \sqrt{B})$$

$$\text{Upper limit} = B + (1.96 \times \sqrt{B})$$

where

B = number of births

Example

Suppose that the number of first births to white women 40–44 years of age was 14,108. The 95-percent confidence limits for this number would be:

$$\text{Lower limit} = 14{,}108 - (1.96 \times \sqrt{14{,}108})$$
$$= 14{,}108 - 233$$
$$= 13{,}875$$

$$\text{Upper limit} = 14{,}108 + (1.96 \times \sqrt{14{,}108})$$
$$= 14{,}108 + 233$$
$$= 14{,}341$$

This means that the chances are 95 out of 100 that the actual number of first births to white women 40–44 years of age would lie between 13,875 and 14,341.

Computing confidence intervals for rates

The same statistical assumptions can be used to estimate the variability in birth rates. Again, one formula is used for rates based on numbers of events less than 100, and another formula for rates based on numbers of 100 or greater. For our purposes, assume that the denominators of these rates (the population estimates) have no

Table IV. Values of *L* and *U* for calculating 95-percent confidence limits for numbers of events and rates when the number of events is less than 100

N	*L*	*U*	*N*	*L*	*U*
1	0.02532	5.57164	51	0.74457	1.31482
2	0.12110	3.61234	52	0.74585	1.31137
3	0.20622	2.92242	53	0.74907	1.30802
4	0.27247	2.56040	54	0.75123	1.30478
5	0.32470	2.33367	55	0.75334	1.30164
6	0.36698	2.17658	56	0.75539	1.29858
7	0.40205	2.06038	57	0.75739	1.29562
8	0.43173	1.97040	58	0.75934	1.29273
9	0.45726	1.89831	59	0.76125	1.28993
10	0.47954	1.83904	60	0.76311	1.28720
11	0.49920	1.78928	61	0.76492	1.28454
12	0.51671	1.74680	62	0.76669	1.28195
13	0.53246	1.71003	63	0.76843	1.27943
14	0.54671	1.67783	64	0.77012	1.27698
15	0.55969	1.64935	65	0.77178	1.27458
16	0.57159	1.62394	66	0.77340	1.27225
17	0.58254	1.60110	67	0.77499	1.26996
18	0.59266	1.58043	68	0.77654	1.26774
19	0.60207	1.56162	69	0.77806	1.26556
20	0.61083	1.54442	70	0.77955	1.26344
21	0.61902	1.52861	71	0.78101	1.26136
22	0.62669	1.51401	72	0.78244	1.25933
23	0.63391	1.50049	73	0.78384	1.25735
24	0.64072	1.48792	74	0.78522	1.25541
25	0.64715	1.47620	75	0.78656	1.25351
26	0.65323	1.46523	76	0.78789	1.25165
27	0.65901	1.45495	77	0.78918	1.24983
28	0.66449	1.44528	78	0.79046	1.24805
29	0.66972	1.43617	79	0.79171	1.24630
30	0.67470	1.42756	80	0.79294	1.24459
31	0.67945	1.41942	81	0.79414	1.24291
32	0.68400	1.41170	82	0.79533	1.24126
33	0.68835	1.40437	83	0.79649	1.23965
34	0.69253	1.39740	84	0.79764	1.23807
35	0.69654	1.39076	85	0.79876	1.23652
36	0.70039	1.38442	86	0.79987	1.23499
37	0.70409	1.37837	87	0.80096	1.23350
38	0.70766	1.37258	88	0.80203	1.23203
39	0.71110	1.36703	89	0.80308	1.23059
40	0.71441	1.36172	90	0.80412	1.22917
41	0.71762	1.35661	91	0.80514	1.22778
42	0.72071	1.35171	92	0.80614	1.22641
43	0.72370	1.34699	93	0.80713	1.22507
44	0.72660	1.34245	94	0.80810	1.22375
45	0.72941	1.33808	95	0.80906	1.22245
46	0.73213	1.33386	96	0.81000	1.22117
47	0.73476	1.32979	97	0.81093	1.21992
48	0.73732	1.32585	98	0.81185	1.21868
49	0.73981	1.32205	99	0.81275	1.21746
50	0.74222	1.31838			

error. While this assumption is technically correct *only* for denominators based on the census that occurs every 10 years, the error in intercensal population estimates is usually small, difficult to measure, and therefore not considered.

95-percent confidence limits for rates based on less than 100 events

When the number of events in the numerator is less than 20, an asterisk is shown in place of the rate because there were too few births to compute a statistically reliable rate. When the number of events in the numerator is greater than 20 but less than 100, the confidence interval for a rate can be estimated using the two formulas that follow and the values in table IV.

Lower limit = $R \times L$

Upper limit = $R \times U$

where

R = birth rate

L = value in table IV that corresponds to the number B in the numerator of the rate

U = value in table IV that corresponds to the number B in the numerator of the rate

Example

Suppose that the first birth rate for American Indian women 40–44 years of age was 0.54 per 1,000, based on 47 births in the numerator. Using table IV:

Lower limit = 0.54 x 0.73476 = .40

Upper limit = 0.54 x 1.32979 = .72

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This means that the chances are 95 out of 100 that the actual first birth rate for American Indian women 40–44 years of age lies between .40 and .72.

95-percent confidence limits for rates when the numerator is 100 or more

In this case, use the following formula for the birth rate R based on the number of births B:

$$\text{Lower limit} = R - [1.96 \times (R/\sqrt{B})]$$

$$\text{Upper limit} = R + [1.96 \times (R/\sqrt{B})]$$

where

R = the birth rate
B = the number of births

Example

Suppose that the first birth rate for white women 40–44 years of age was 1.55 per 1,000, based on 14,108 births in the numerator. Therefore, the 95-percent confidence interval would be:

$$\text{Lower limit} = 1.55 - [1.96 \times (1.55/\sqrt{14{,}108})]$$
$$= 1.55 - .026$$
$$= 1.52$$

$$\text{Upper limit} = 1.55 + [1.96 \times (1.55/\sqrt{14{,}108})]$$
$$= 1.55 + .026$$
$$= 1.58$$

This means that the chances are 95 out of 100 that the actual first birth rate for white women 40–44 years of age lies between 1.52 and 1.58.

Computing 95-percent confidence intervals for percents

In many instances we need to compute the confidence intervals for percents. Percents derive from a binomial distribution. As with birth rates, an asterisk will be shown for any percent that is based on fewer than 20 births in the numerator. We easily compute a 95-percent confidence interval for a percent when the following conditions are met:

$$B \times p \geq 5 \text{ and } B \times q \geq 5$$

where

B = number of births in the denominator
p = percent divided by 100
$q = 1 - p$

For natality data, these conditions will be met except for very rare events in small subgroups. If the conditions are *not* met, the variation in the percent will be so large as to render the confidence intervals meaningless. When these conditions are met the 95-percent confidence interval can be computed using the normal approximation of the binomial. The 95-percent confidence intervals are computed by the following formulas:

$$\text{Lower limit} = p - [1.96 \times (\sqrt{p \times q / B})]$$

$$\text{Upper limit} = p + [1.96 \times (\sqrt{p \times q / B})]$$

where

p = percent divided by 100
$q = 1 - p$
B = number of births in the denominator

Example

Suppose that the percent of births to Hispanic women in Alabama that were to unmarried women was 23.0 percent. This was based on 310 births in the numerator and 1,345 births in the denominator. First we test to make sure we can use the normal approximation of the binomial:

$$1{,}345 \times .230 = 309$$
$$1{,}345 \times (1 - .230) = 1{,}345 \times .770 = 1{,}036$$

Both 309 and 1,036 are greater than 5 so we can proceed. The 95-percent confidence interval would be:

$$\text{Lower limit} = .23 - \left(1.96\sqrt{\frac{.23(.77)}{1{,}345}}\right)$$
$$= .23 - .022$$
$$= .208, \text{ or } 20.8 \text{ percent}$$

$$\text{Upper limit} = .23 + \left(1.96\sqrt{\frac{.23(.77)}{1{,}345}}\right)$$
$$= .23 + .022$$
$$= .252, \text{ or } 25.2 \text{ percent}$$

This means that the chances are 95 out of 100 that the actual percent of births in Alabama to Hispanic women that are to unmarried women lies between 20.8 and 25.2 percent.

Significance testing

One of the rates is based on fewer than 100 cases

To compare two rates is when one or both of those rates are based on less than 100 cases, you first compute the confidence intervals for both rates. Then you check to see if those intervals overlap. If they **do** overlap, the difference is not statistically significant at the 95-percent level. If they **do not** overlap, the difference is indeed "statistically significant."

Example

Is the first birth rate for American Indian women 40–44 years of age (.54 per 1,000) significantly lower than the comparable rate for white women (1.55)? The rate for American Indian women is based on 47 events whereas the rate for white women is based on 14,108 events. The rate for American Indian women is based on less than 100 events; therefore, the first step is to compute the confidence intervals for both rates.

	Lower Limit	Upper Limit
American Indian women	0.40	0.72
White women	1.52	1.58

These two confidence intervals do not overlap. Therefore, the first birth rate for American Indian women aged 40–44 years is significantly lower (at the 95-percent confidence level) than the comparable rate for white women.

Both rates are based on 100 or more events

When both rates are based on 100 or more events, the difference between the two rates is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two rates.

$$1.96\sqrt{\frac{R_1^2}{N_1}+\frac{R_2^2}{N_2}}$$

where

R_1 = first rate
R_2 = second rate
N_1 = first number of births
N_2 = second number of births

If the difference is **greater** than this statistic, then the difference would occur by chance less than 5 times out of 100. If the difference is **less** than this statistic, the difference might occur by chance more than 5 times out of 100. We say that the difference is not statistically significant at the 95-percent confidence level.

Example

Is the first birth rate for black women 40–44 years of age (1.08 per 1,000) significantly lower than the comparable rate for white women (1.55)? Both rates are based on more than 100 births (1,535 for black women and 14,108 for white women). The difference between the rates is 1.55–1.08 = .47. The statistic is then calculated as follows:

$$1.96\sqrt{\frac{1.08^2}{1{,}535}+\frac{1.55^2}{14{,}108}}$$

$$= 1.96 \times \sqrt{([1.166/1{,}535]+[2.403/14{,}108])}$$

$$= 1.96 \times \sqrt{0.00076+0.00017}$$

$$= 1.96 \times \sqrt{0.00093}$$

$$= 1.96 \times .03$$

$$= .06$$

The difference between the rates (.47) is greater than this statistic (.06). Therefore, the difference is statistically significant at the 95-percent confidence level.

Testing differences between two percents

When testing the difference between two percents, both percents must meet the following conditions:

$B \times p \geq 5$ and $B \times q \geq 5$

where

B = number of births in the denominator
p = percent divided by 100
$q = 1 - p$

When both percents meet these conditions then the difference between the two percents is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two percents.

$$1.96\sqrt{p(1-p)\left(\frac{1}{B_1}+\frac{1}{B_2}\right)}$$

where

B_1 = number of births in the denominator for the first percent
B_2 = number of births in the denominator for the second percent

$$p=\frac{B_1 p_1 + B_2 p_2}{B_1 + B_2}$$

p_1 = first percent
p_2 = second percent

Example

Is the percent of births to Hispanic women that were to unmarried women higher in Alaska (28.8 percent) than in Alabama (23.0). The number in the denominator was 593 in Alaska and 1,345 in Alabama. The necessary conditions are met for both percents (calculations not shown). The difference between the two percents is .288–.230 = .058. The statistic is then calculated as follows:

$$1.96\sqrt{.248(.752)\,(.00243)} = 1.96 \times \sqrt{.00045}$$
$$= 1.96 \times .021$$
$$= .042$$

The difference between the percents (.058) is greater than this statistic (.042). Therefore, the difference is statistically significant at the 95-percent confidence level.

Information on computing confidence intervals for and testing differences between rates for Hispanic subgroups is available elsewhere (4).

Definitions of medical terms

The 1989 revision of the U.S. Standard Certificate of Live Birth includes several maternal and infant health items in checkbox format, including obstetric procedures, medical risk factors, complications of labor and/or delivery, abnormal conditions of the newborn, and congenital anomalies of the child (figure I). The definitions that follow are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the National Association of Public Health Statistics and Information Systems, formerly known as the Association for Vital Records and Health Statistics (101).

Medical risk factors for this pregnancy

Anemia—Hemoglobin level of less than 10.0 g/dL during pregnancy or a hematocrit of less than 30 percent during pregnancy.

Cardiac disease—Disease of the heart.

Acute or chronic lung disease—Disease of the lungs during pregnancy.

Diabetes—Metabolic disorder characterized by excessive discharge of urine and persistent thirst; includes juvenile onset, adult onset, and gestational diabetes during pregnancy.

Genital herpes—Infection of the skin of the genital area by herpes simplex virus.

Hydramnios/oligohydramnios—Any noticeable excess (hydramnios) or lack (oligohydramnios) of amniotic fluid.

Hemoglobinopathy—A blood disorder caused by alteration in the genetically determined molecular structure of hemoglobin (example: sickle cell anemia).

Hypertension, chronic—Blood pressure persistently greater than 140/90, diagnosed prior to onset of pregnancy or before the 20th week of gestation.

Hypertension, pregnancy-associated—An increase in blood pressure of at least 30 mm Hg systolic or 15 mm Hg diastolic on two measurements taken 6 hours apart after the 20th week of gestation.

Eclampsia—The occurrence of convulsions and/or coma unrelated to other cerebral conditions in women with signs and symptoms of pre-eclampsia.

Incompetent cervix—Characterized by painless dilation of the cervix in the second trimester or early in the third trimester of pregnancy, with premature expulsion of membranes through the cervix and ballooning of the membranes into the vagina, followed by rupture of the membranes and subsequent expulsion of the fetus.

Previous infant 4,000+ grams—The birth weight of a previous live-born child was over 4,000+ grams (8 pounds 14 ounces).

Previous preterm or small-for-gestational-age infant—Previous birth of an infant prior to term (before 37 completed weeks of gestation) or of an infant weighing less than the tenth percentile for gestational age using a standard weight for age chart.

Renal disease—Kidney disease.

Rh sensitization—The process or state of becoming sensitized to the Rh factor as when an Rh-negative woman is pregnant with an Rh-positive fetus.

Uterine bleeding—Any clinically significant bleeding during the pregnancy taking into consideration the stage of pregnancy; any second or third trimester bleeding of the uterus prior to the onset of labor.

Obstetric procedures

Amniocentesis—Surgical transabdominal perforation of the uterus to obtain amniotic fluid to be used in the detection of genetic disorders, fetal abnormalities, and fetal lung maturity.

Electronic fetal monitoring—Monitoring with external devices applied to the maternal abdomen or with internal devices with an electrode attached to the fetal scalp and a catheter through the cervix into the uterus, to detect and record fetal heart tones and uterine contractions.

Induction of labor—The initiation of uterine contractions before the spontaneous onset of labor by medical and/or surgical means for the purpose of delivery.

Stimulation of labor—Augmentation of previously established labor by use of oxytocin.

Tocolysis—Use of medications to inhibit preterm uterine contractions to extend the length of pregnancy and, therefore, avoid a preterm birth.

Ultrasound—Visualization of the fetus and the placenta by means of sound waves.

Complications of labor and/or delivery

Febrile—A fever greater than 100 ° F. or 38 ° C. occurring during labor and/or delivery.

Meconium, moderate/heavy—Meconium consists of undigested debris from swallowed amniotic fluid, various products of secretion, excretion and shedding by the gastrointestinal tract; moderate to heavy amounts of meconium in the amniotic fluid noted during labor and/or delivery.

Premature rupture of membranes (more than 12 hours)—Rupture of the membranes at any time during pregnancy and more than 12 hours before the onset of labor.

Abruptio placenta—Premature separation of a normally implanted placenta from the uterus.

Placenta previa—Implantation of the placenta over or near the internal opening of the cervix.

Other excessive bleeding—The loss of a significant amount of blood from conditions other than abruptio placenta or placenta previa.

Seizures during labor—Maternal seizures occurring during labor from any cause.

Precipitous labor (less than 3 hours)—Extremely rapid labor and delivery lasting less than 3 hours.

Prolonged labor (more than 20 hours)—Abnormally slow progress of labor lasting more than 20 hours.

Dysfunctional labor—Failure to progress in a normal pattern of labor.

Breech/malpresentation—At birth, the presentation of the fetal buttocks rather than the head, or other malpresentation.

Cephalopelvic disproportion—The relationship of the size, presentation and position of the fetal head to the maternal pelvis which prevents dilation of the cervix and/or descent of the fetal head.

Cord prolapse—Premature expulsion of the umbilical cord in labor before the fetus is delivered.

Anesthetic complications—Any complication during labor and/or delivery brought on by an anesthetic agent or agents.

Fetal distress—Signs indicating fetal hypoxia (deficiency in amount of oxygen reaching fetal tissues).

Abnormal conditions of the newborn

Anemia—Hemoglobin level of less than 13.0 g/dL or a hematocrit of less than 39 percent.

Birth injury—Impairment of the infant's body function or structure due to adverse influences which occurred at birth.

Fetal alcohol syndrome—A syndrome of altered prenatal growth and development occurring in infants born of women who consumed excessive amounts of alcohol during pregnancy.

Hyaline membrane disease/RDS—A disorder primarily of prematurity, manifested clinically by respiratory distress and pathologically by pulmonary hyaline membranes and incomplete expansion of the lungs at birth.

Meconium aspiration syndrome—Aspiration of meconium by the fetus or newborn, affecting the lower respiratory system.

Assisted ventilation (less than 30 minutes)—A mechanical method of assisting respiration for newborns with respiratory failure.

Assisted ventilation (30 minutes or more)—Newborn placed on assisted ventilation for 30 minutes or longer.

Seizures—A seizure of any etiology.

Congenital anomalies of child

Anencephalus—Absence of the cerebral hemispheres.

Spina bifida/meningocele—Developmental anomaly characterized by defective closure of the bony encasement of the spinal cord, through which the cord and meninges may or may not protrude.

Hydrocephalus—Excessive accumulation of cerebrospinal fluid within the ventricles of the brain with consequent enlargement of the cranium.

Microcephalus—A significantly small head.

Other central nervous system anomalies—Other specified anomalies of the brain, spinal cord, and nervous system.

Heart malformations—Congenital anomalies of the heart.

Other circulatory/respiratory anomalies—Other specified anomalies of the circulatory and respiratory systems.

Rectal atresia/stenosis—Congenital absence, closure, or narrowing of the rectum.

Tracheo-esophageal fistula/Esophageal atresia—An abnormal passage between the trachea and the esophagus; esophageal atresia is the congenital absence or closure of the esophagus.

Omphalocele/Gastroschisis—An omphalocele is a protrusion of variable amounts of abdominal viscera from a midline defect at the base of the umbilicus. In gastroschisis, the abdominal viscera protrude through an abdominal wall defect, usually on the right side of the umbilical cord insertion.

Other gastrointestinal anomalies—Other specified congenital anomalies of the gastrointestinal system.

Malformed genitalia—Congenital anomalies of the reproductive organs.

Renal agenesis—One or both kidneys are completely absent.

Other urogenital anomalies—Other specified congenital anomalies of the organs concerned in the production and excretion of urine, together with organs of reproduction.

Cleft lip/palate—Cleft lip is a fissure or elongated opening of the lip; cleft palate is a fissure in the roof of the mouth. These are failures of embryonic development.

Polydactyly/syndactyly/adactyly—Polydactyly is the presence of more than five digits on either hands and/or feet; syndactyly is having fused or webbed fingers and/or toes; adactyly is the absence of fingers and/or toes.

Club foot—Deformities of the foot, which is twisted out of shape or position.

Diaphragmatic hernia—Herniation of the abdominal contents through the diaphragm into the thoracic cavity usually resulting in respiratory distress.

Other musculoskeletal/integumental anomalies—Other specified congenital anomalies of the muscles, skeleton, or skin.

Down's syndrome—The most common chromosomal defect with most cases resulting from an extra chromosome (trisomy 21).

Other chromosomal anomalies—All other chromosomal aberrations.

Related reports

Many of the topics discussed in this report are covered in more analytic detail in other reports published by NCHS. Topics of reports published in the past 5 years include Hispanic origin births (5); twin and triplet births (70, 83); teenage birth rates by State (7); birth rates by educational attainment of the mother (102); cesarean deliveries, attendant at birth, place of delivery, and obstetric procedures (61, 103); births to unmarried mothers (24); trends in pregnancies and pregnancy rates (8); and trends in smoking (37).

This report presents summary tabulations from the final natality statistics for 1999. The National Center for Health Statistics will respond to requests for unpublished data whenever possible.

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